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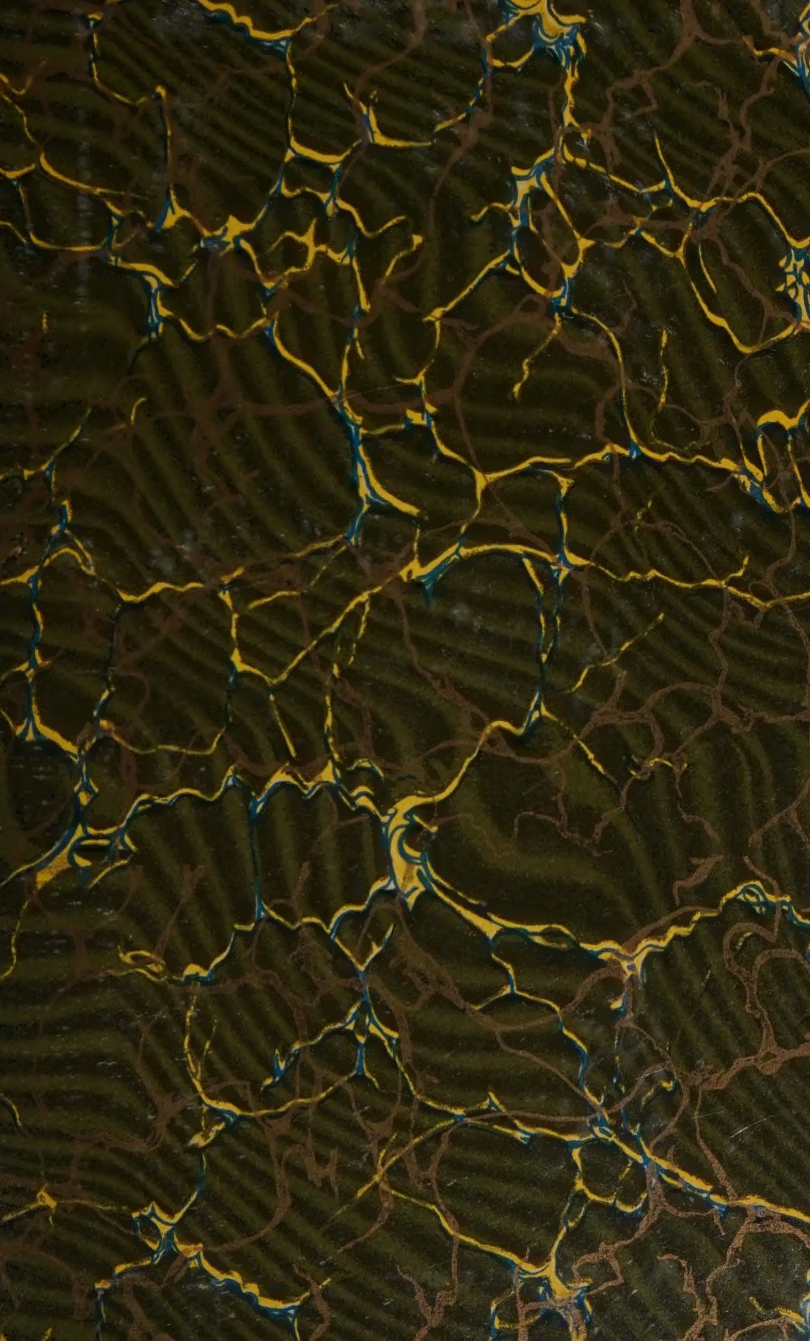
CHAS. H. MORRIS



ENCYCLOPEDIA OF DIET

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A Treatise on the Food Question

IN FIVE VOLUMES

EXPLAINING, IN PLAIN LANGUAGE, THE CHEMISTRY OF FOOD AND THE CHEMISTRY OF THE HUMAN BODY, TOGETHER WITH THE ART OF UNITING THESE TWO BRANCHES OF SCIENCE IN THE PROCESS OF EATING SO AS TO ESTABLISH NORMAL DIGESTION AND ASSIMILATION OF FOOD AND NORMAL ELIMINATION OF WASTE, THEREBY REMOVING THE CAUSES OF STOMACH, INTESTINAL, AND ALL OTHER DIGESTIVE DISORDERS

BY

EUGENE CHRISTIAN, F. S. D.

VOLUME III

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LESSON XII

Harmonious Combinations of Food—Recent Discoveries in Food Science

CHEMICAL CHANGES PRODUCED BY COOKING

The application of heat to food is comparatively of recent origin in the evolution of mankind. The use of fire involves a certain amount of mental ingenuity, and could not be practised by man's anthropoid ancestors. Anthropoid animals, whether human or ape, have a great amount of curiosity for the unusual and the new.

Man probably began his cooking experiments by soaking hard foods in warm water, then in hot water, or by warming cold foods at his camp-fire. As heat

volatilizes the pleasant odorous substance present in many foods, the custom of heating them probably became popular. The habit of cooking spread, as many other novel and interesting customs have spread, from this primitive process to the French chef, regardless of whether the results were beneficial or harmful.

The question whether foods should be eaten cooked or uncooked can best be answered by examining the chemical and mechanical changes produced in the process of cooking, and their consequent physiological effects.

Cooking may be divided into two classes, namely, MOIST HEAT and DRY HEAT. To illustrate:

Effect of heat on sugars

Sugars are not chemically affected by boiling with water, while starch, cooked with boiling water, or steam, absorbs from three to five times its bulk of moisture, and changes into a soft, pasty, or semi-dissolved mass. Under dry heat, sugars

are converted into a brown substance, known as caramel, while starch cooked under a temperature of 300° to 400° of dry heat, is changed into a dextrin, of which toast and zwieback are examples.

Effect of heat on fats

Fats are not changed chemically by moist heat; that is, by being boiled in water, but the globules are melted and the hot fat spreads in a film over other material which may be present. In dry heat, fats are chemically decomposed, forming irritating vapors. The odors of frying fat are due to the presence of small quantities of these decomposition products. In larger quantities, and with greater heat, these substances are exceedingly irritating to the mucous membrane of the stomach and the intestines.

Effect of heat on proteids

The chemical changes produced by heating proteids are of much more importance than are those which take place in other foods. Simple proteids, such

as albumin and globulin, are coagulated at a temperature of about 160°. This change is familiar in the coagulation of egg whites under low temperature. Other proteids undergo similar changes, governed by the degree and kind of heat (dry or moist), to which they are subjected. This change in proteid material continues with the application of prolonged heat, until the proteid, under dry heat, is converted into a dark brittle mass, wholly insoluble and indigestible.

If the student will take the white of an egg, and bake it for some time in an oven, he will observe the coagulation or hardening of the proteid. The chemical nature of this change is one of great complexity. The molecules combine with each other, forming almost indestructible substances.

STARCH DIGESTION—COOKED AND UNCOOKED

Comparative digestion of cooked and uncooked grain

The student will remember the reference made in Lesson V to experiments concerning the digestibility of starch when taken in various forms. In these experiments, though conducted for the purpose of demonstrating the supposed advantage of excessive cooking, the results showed that at the time the contents of the stomach were removed, all the proteids of the uncooked grain had been digested, while the percentage of proteid digested from the various forms of cooked grain grew less as the cooking was increased. As the chief function of the gastric juice is the digestion of proteids, the real significance of the above experiments was exactly the opposite from that which was intended to be proved.

The statement is frequently made that the starch of grain cannot be digested

without cooking, because the cells enclosing the starch grains have indigestible or insoluble cellulose walls. The old theory is that cooking expands the starch and ruptures or tears down these walls, freeing the contents so that the digestive juices may act upon the enclosed starch granules. This is a theory unsupported by facts. The cell walls on the interior of the grain kernel are very filmy, and in the mature grain scarcely exist at all. The analysis of wheat flour shows only a trace of cellulose fiber. Were these cellulose walls within the wheat grain, as this theory commonly teaches, flour would show a liberal quantity of cellulose. The cellulose wall theory, as a necessity for cooking starch, is an excellent illustration of the ease with which a groundless statement or theory may be used to prove or to explain some popular prejudice.

Reasons given for cooking starch

In the process of cooking, the tendency is to render the organic salts contained in

food entirely inorganic. This change from organic to inorganic salts is measured by the temperature to which the foods are subjected. Many of these salts are combined with the nitrogenous constituents of food, therefore when subjected to certain degrees of heat they are of little value in the construction of the proteid molecules within the body. This is especially true of fresh or green vegetables.

EXCUSES FOR COOKING OUR FOOD

Ancestral habite not inherited

Inasmuch as the majority of people favor cooking, probably forgetting that about half of the food consumed in the world at the present time is taken in its natural or uncooked state, it may be well to mention some of the views advanced by those who believe that the present diet of cooked grain is better for modern man than an elementary diet, and who

attempt to give a natural explanation. One theory is that man has subsisted so long upon cooked foods that his organs have become fitted for a cooked diet, and a cooked diet only. Another view sometimes advanced is, that while cooked foods were originally detrimental, yet by continued use man has become fitted for such a diet and unfitted for a natural diet. These are but other forms of the old belief in the inheritance of acquired characteristics. This belief, however, is steadily losing ground among evolutionists. There is no more reason to believe that a modified function of the stomach would be inherited, than there is to believe that small feet would be inherited among the Chinese women just because these organs are mutilated by local custom.

The best light of scientific knowledge now leads us to believe that the healthy child of today is, in its capacity for nutrition, essentially like the primitive child,

and would thrive best upon a varied diet of natural foods.

EXPERIMENT UPON ANIMALS

While I do not claim that the methods of animal feeding apply accurately to man, yet the digestive and the assimilative processes of animals are so closely related to the human processes, that the results obtained in animal nutrition are very instructive to the student of human food science.

About thirty years ago, when the scientific study of agriculture first became prevalent, an experiment was made in cooked food for animals, upon an extensive basis. At that time it was the universal belief that man owed much of his superiority over other animals to the use of cooked food. This argument was put forth with great force and appeared quite reasonable. It was asked whether animals other than man would be

benefited by changing to a cooked bill of fare.

Governmental experiments on cooked food for animals

During this agitation numerous western farmers put their hogs, chickens, cows, horses, and sheep upon a cooked bill of fare, and many enthusiastic feeders claimed beneficial results. Later the various Governmental Experimental Stations took up the subject and made many careful, complete, and comparative tests of the effects of cooked and uncooked food for animals. The result did not show the expected thing. The cooking experiments in the majority of cases proved injurious, and the general decision of the Government investigators was that cooking food for animals was useless and detrimental to the great live stock industry. Stock food cookery has now become entirely obsolete.

Man is the only animal that cooks his food, and has made great progress in civilization while subsisting on a cooked

diet, but cooking is no more the cause of his advancement than silk hats and swallow-tailed coats. He has advanced only according to the degree that he has thought, studied, and experimented. Cooking has undoubtedly enabled man to utilize many things as food, that he could not and would not have used otherwise, but whether this has aided or retarded in his material progress is yet an unsolved question.

Cooking a habit of civilization

Recent Discoveries in Food Science

The newer research into food problems, which the war stimulated, has achieved great practical results because it has been based on the study of the effect of foods on the living organism. The effects of limited and inefficient diets on the ill-fed millions of devastated Europe, and particularly the potency of food in the curing of specific "deficiency

diseases" such as beri-beri, pellagra, scurvy and anemia, furnished an extensive field for direct human observation. To test out the reasoned conclusions resulting from facts so learned, the scientists resorted to extensive experiments upon animals, the results of which have sustained and proven in a most absolute fashion the principles deduced from the human observation.

The distinctive thing about this new biological view of food science is that the living organism and not the chemist's test tube is held to be the final test of food knowledge.

These recent discoveries explain in theory many things which I have learned in practice, but they have revealed nothing that would cause me to change the practical teachings built upon my own observation and experience. In many cases the new science gives new names to older things, and by so doing tends to confuse the reader. Therefore I have prepared this lesson to elucidate or put

into comprehensive language the latest discoveries along the lines of scientific feeding.

ANIMAL EXPERIMENTATION

The most valuable source of human food knowledge is the observation of the effects of food upon man. Not only is this true because we wish to apply the knowledge to the same species, that is to man, but also because the man can sense and report the physical and mental effects which the external observer cannot otherwise learn. Notwithstanding the superiority of the human subject, the feeding tests upon animals have proven exceedingly valuable because animals may be more freely experimented upon, and also because quick-breeding animals may be observed throughout one or several complete cycles of life, reproduction, growth and death.

Animal experimentation has proven especially valuable in confirming the laws of nutrition as deduced from hu-

man observation. If a man makes errors in his diet and develops disease therefrom, he or his physician may ascribe the disease to other causes. If he corrects his diet—and also takes medicine or goes to a sanitarium—and gets well, the patient and physician will ascribe the cure to the more mysterious drugs or the more expensive sanitarium. But when an animal is deliberately fed a similar faulty diet, and gets a similar disease, and the diet is corrected, and the animal gets well, it is too convincing to admit of argument. Science, freed from prejudice and superstition, thus speaks in unmistakable language, and food must be given its proper credit.

The first striking demonstration of the utility of such animal experimentation were the studies made with pigeons in an effort to solve the mystery of beriberi, a disease caused by a diet of polished rice. Pigeons when fed exclusively on polished rice developed a disease similar to that of beri-beri in man. The

bran and germ of the rice which is removed in polishing, was administered, and cured the disease. In fact the cures were remarkable in that a very minute quantity of some unknown substance which could be dissolved from the rice polishings (bran and germ) with water or with alcohol was found to effect a speedy cure. The quantity of this natural food substance was so small and of such chemical complexity that it defied analysis in the laboratory, yet its effects were unmistakable. Other vegetable food substances yielded the same mysterious "curative agent." It was also found in milk and yeast cells.

THE VITAMINES

The new substance, chemically undiscoverable but biologically demonstrated, was termed "vitamine," or life giver. The discoverer, an English scientist named Funk, conceived the vitamine theory of disease. He did not disturb the germ theory of the diseases for which definite

germs had been discovered and named, but there were numerous diseases for which no germs were yet available and many of these were conceded by advanced physicians to be caused by faulty diets. Funk's idea was that for each such disease there was a specific vitamine. But while the *presence* of the germ is supposed to cause the disease the *absence* of the vitamine was the cause, and its presence would promote the cure. As far as the disease beri-beri is concerned the theory is amply demonstrated to be correct. Funk's discovery was fascinating to the scientific investigators the world over and they began a diligent search for vitamines.

The next distinctive discovery was made by McCullom, an American biologist. Working with rats, he found that when fed a diet of chemically purified fats, carbohydrates, protein and mineral salts the rats failed to thrive, and all growth of the young rats was stopped. But when small quantities of butter were

added to the diet the rats began to grow again. It was not the fat element that caused this wonderful change, since lard and vegetable oils had no effect, but another "vitamine" contained in butter. McCullum, however, rejects the term "vitamine." The first of these mysterious elements he calls "water soluble A" and the second one "fat soluble B." He also found that the lack of the "fat soluble" element caused an eye disease in the rats. A similar disease, it is claimed, has been observed in certain European children fed on a milkless and butterless diet. Nevertheless McCullum rejected the theory of each disease having its particular vitamine. He contends that the absence of the two food essentials, of unknown composition and existing in minute quantities, are both involved in the cause of many diseases, and that the problem is complicated in actual life by the frequent deficiency of mineral salts, or by a deficiency in the quality of the food proteins.

GENERAL CONCLUSIONS

It would be quite impossible for me to give in a single lesson even a brief outline of the thousands of researches that have recently been conducted in this field. The general conclusions are well established, and serve to reveal the vital importance of a correct and natural diet in the maintenance of health, growth and reproduction. Numerous instances of diseased and stunted growth have been artificially caused in experimental animals and have in turn been remedied by supplying essential elements of the diet that had been deliberately withheld. The general principles so discovered may be quickly summarized:

The complete and sufficient diet must contain the fat soluble vitamine which was found in butter. This may come from butter, cheese or whole milk. It is not found in vegetable oils or lard, though it exists in smaller quantities in beef fat. It is absent from seeds or

cereals but is present in leaves and hence in salad vegetables. The water soluble vitamine is found in the germs of grain, and hence in whole grain products but not in white flour, polished rice, starches, glucose or sugar. It is also found in many vegetables, nuts and fruits, and in milk and eggs, but is rare in meat.

In practice the problem of securing ample vitamine may be solved by the use of milk, green vegetables, fresh fruit and whole grain. *The danger lies in a diet chiefly composed of denatured (bolted) cereals, starches, sugars, fats and meat.*

Lack of the vitamine substances plays a very grave part in the problems of malnutrition and disease caused by the conventional "civilized" diet. An investigation of the menus prescribed in these lessons will reveal how completely these scientific discoveries accord with my work, although many of these menus were made up long before the term

"vitamine" was invented or the fact of its existence demonstrated.

The demonstration of the existence and importance of the vitamines is but one beam of the light that has been shed into the dark laboratories of the scholastic food chemist by the new biological method of testing foods. McCullum says: "In the light of the revelations in the field of nutrition during the last few years, it seems remarkable that close students of animal nutrition accepted for so long without proof the belief that the results of chemical analysis revealed the dietary values of foodstuffs." With that statement I most emphatically agree, particularly if by the term "animal" McCullum means the word in the broad sense, which includes man.

PROTEIN

Protein has in the past been used as a blanket term to cover the chemist's

ignorance of the more detailed composition of a numerous and complex group of substances which are present in food and which make up the complex and mysterious elements of the animal and human organism. Protein substances were differentiated from other foods by the presence of the chemical element nitrogen.

Recent chemical research has revealed the fact that the individual proteins were composed of numerous related though distinct substances known as amino-acids. Some eighteen or twenty of these amino-acids have now been chemically isolated and the chemical formulas worked out. These later discoveries offer a chemical explanation of the reason for the observed biological distinction in the value of different proteins. Since the living body contains many protein substances, differing widely from each other and differing also from the proteins of the foods, it is apparent that the food pro-

teins cannot be absorbed as such and directly utilized as living tissue. It is now known that proteins are never absorbed into the blood in the original form. Instead they are separated by the digestive enzymes into the various amino-acids of which all proteins are composed. These more elementary, though still complex substances are carried by the blood to the various cells of the body, and these cells select the various amino-acids in the proportions required to build the different proteins of the body.

If any of the amino-acids required by the body be lacking, life and growth cannot be sustained, even though the food be complete in all other respects. The quantity of total protein may be sufficient in amount, but if the quality of the protein is not efficient the body cannot be properly nourished because all proteins do not contain all the necessary amino-acids.

The chemical knowledge of proteins is

not complete, but only suggests an explanation of the general way in which proteins may vary in food value. Biological feeding tests are much more dependable. The results thus far attained show that the protein of milk has the highest nutritive value. Young pigs retain or utilize for growth about three-fifths of the milk protein as compared with but one-fifth of the protein from corn. Wheat protein is somewhat superior to that from corn, and oats superior to that of wheat, but the differences are not great. The protein from the grains outranks that from beans and peas. Animal protein as a whole outranks protein of vegetable origin; eggs are second to milk and meat takes third place in the foods of animal origin. The superiority of animal proteins is not however a sufficient reason for including large quantities of animal food in the diet, but rather quite the opposite, because the amount of such foods required

to supply the body with its necessary protein is smaller than in the case of vegetable protein. Moreover, milk and eggs have other elements of superiority that do not apply to meat.

Since a surplus of protein is a source of wasted physiological energy it is desirable that we derive a large proportion of proteins from the most efficient sources.

MINERAL SALTS

The question of the mineral or salt content of foods is, like that of protein, one of great complexity. From my earliest work in food science, I have recognized the extreme importance of the mineral elements in the diet, particularly in the matter of the cause and cure of disease. I have further recognized the greater importance of fruits and vegetables as a source of minerals when compared with breads, starches and meats.

The more recent discoveries of science require no change in the practical application of these general principles, but serve more fully to explain the reason for the use of certain vegetable substances, particularly the green or salad varieties which are the richest of all foods in minerals, both in organic and inorganic combinations.

All the important mineral elements are supplied in milk in superabundance, with the exception of iron. As the milk of the cow is adapted to a more rapidly growing young than the human infant, milk can supply these deficiencies, even though it form but part of the diet. But cow's milk contains no such surplus of iron, and in the case of the use of diluted or modified cow's milk, fruit or vegetable juice rich in iron is desirable. With the human adult the ordinary diet should be supplemented both by milk and by green vegetables, if all danger of mineral deficiency is to be avoided.

LESSON XIII

CLASSIFICATION OF FOODS

AND

FOOD TABLES

LESSON XIII

Simple Classification of Foods

While there is a dominating substance in all foods, yet they usually contain many compounds which render them, from a chemical standpoint, very difficult to classify accurately. For example, the principal nutrients in wheat are carbohydrates (starch and sugar), yet wheat contains mineral salts, fat, and protein, the latter being a compound consisting of carbon, hydrogen, oxygen, nitrogen, and sulfur. Wheat would, therefore, be placed in the carbohydrate class, but it would overlap into several other classes. What is true of wheat, is true of nearly all other articles of food. Furthermore, foods do not chemically reproduce themselves when taken into the body, but in the process of metabolism they are con-

verted either into other elements or into other compounds. From this it will be understood that the articles listed under the following headings are classified according to the nutritive substance which predominates in them, and are given for the purpose of guiding the practitioner in the selection of such foods as will supply the various chemical constituents of the body.

Foods which contain two or more substances in generous proportions may appear under two or more of the following headings, as in the case of peanuts. This humble article of food contains 19 per cent carbohydrates, 20 per cent protein, and 29 per cent fat, hence it is listed under the three headings—carbohydrates, proteids, and fats.

The tables comprise the best selections of food available in all countries and at all seasons of the year. They contain everything the body needs under the varying conditions of age, climate, and

activity, except, perhaps, in some parts of the frigid zone.

In compiling these tables I have selected only such articles of food as experience has proved most useful.

SIMPLE CLASSIFICATION OF FOODS BASED ON PRINCIPAL NUTRITIVE SUBSTANCES

Carbohydrates			*Fats*	*Proteids*	*Foods rich in Mineral Salts*
Chocolate	Honey	VEGETABLES—	Butter	Cheese	VEGETABLES—
FRUITS—	NUTS—	Asparagus	Cheese	Eggs	Asparagus
Dates	Chestnuts	Bananas	Chocolate	Fish	Beet-tops
Figs	Peanuts	Beets	Cream	LEGUMES—	Cabbage
Grapes	Pignolia or	Cabbage	NUTS—	Beans—dried	Carrots
Persimmons	pine nuts	Carrots	Almonds	Lentils—dried	Celery
Raisins	Sirups	Celery	Brazil-nuts	Peas—dried	Dandelion
GRAINS—	Sugar	Lettuce	Cocoanuts	Milk	Green peas
Barley	Tapioca	Onions	Hickory-nuts	NUTS—	Lettuce
Corn		Parsnips	Peanuts	Peanuts	Onions
Oats		Potatoes—sweet	Pecans	Pignolia or pine nuts	Radish-tops
Rice		Potatoes—white	Pignolia or pine nuts	Poultry	Romaine
Rye		Pumpkin	Walnuts	VEGETABLES—	Spinach
Wheat		Spinach	OILS—	Cabbage	String beans
		Squash	Cottonseed	Lettuce	Turnip-tops
		Turnips	Nut-oil	Onions	Watercress
			Olive-oil	Spinach	Wheat bran
				Turnips	
				Wheat bran	

PURPOSES WHICH THE DIFFERENT CLASSES OF FOOD SERVE IN THE HUMAN BODY

While all the articles of food in the four above-named classifications contain other elements than the one under which heading they appear, yet the body uses or appropriates them for the following purposes:

PURPOSE OF CARBOHYDRATES

The carbohydrate substance in food is used by the body chiefly for the purpose of keeping up body-weight; that is, for the purpose of supplying the various fluids which fill the cell-structure. If one is suffering from emaciation, the carbohydrate element in food should predominate. While some of the more soluble proteids, especially milk and eggs, will give a rapid gain in weight, the weight will not be permanent unless sufficient carbohydrates are taken to supply the

blood with all the required elements of nutrition, or, in other words, to level or to balance the body requirements.

PURPOSE OF FATS

Fats are used by the animal body primarily for the purpose of producing heat. Food is burned or oxidized in the blood, undergoing very much the same action as does the combustion of coal in a grate. The heat thus generated is delegated to the blood, and the blood, by its circulation, distributes this heat throughout the body. The carbon dioxid or waste matter formed during the circulation, is carried to the lungs, where it reunites with the oxygen which we breathe, and thereby again passes back into the atmosphere.

PURPOSE OF PROTEIDS

Proteid is a compound containing chiefly nitrogen, oxygen, and carbon.

Its purpose is to form the muscular and the tissue structure of the body. To use a homely illustration, proteid may be compared to the material which makes the honeycomb, while the carbohydrate substance may be compared to the honey; that is, to the fluids which fill the cells.

Those performing heavy or active muscular labor should eat liberally of the proteid class of foods.

Under normal conditions, natural hunger will call for the quantity of proteid needed. The tendency, however, should be toward the minimum; that is, one should take the lowest quantity of proteid that the body requires to keep up the cell-structure. (See Lesson VI, p. 216.) Modern investigations have shown that, in many cases of extreme athletic tests, a low proteid diet has given the greatest endurance. This is accounted for by the fact that nearly all carbohydrates, especially of the grain family, contain from 8 to 12 per cent of

proteids, which is quite sufficient, in many instances, to supply the body with all the tissue-building material necessary.

Inasmuch as the several nutritive elements found in a single article of food are better proportioned by Nature, than man can usually proportion them, the relation of one substance to another will be better divided if the entire meal be made to consist of only one kind of food, and both digestion and assimilation will therefore be more perfect. Under these conditions the blood will be laden with very little waste matter, which is the thing that reduces our powers of endurance. Therefore, when it is possible to secure the carbohydrate, the proteid, and the fatty substances from a single article of food which will give to the body greater strength and endurance than when we secure these substances from several sources, we should confine our menus to single articles of well-proportioned food. This thought, carried to its logical

end, leads one more and more, as experience progresses, toward the mono-diet system.

PURPOSE OF MINERAL SALTS

Mineral salts serve two distinct purposes in the body:

1 They assist in building up the cartilage and the body-structure

2 They assist in the digestion, and in the dissolution of other foods, especially of the carbohydrate group, and more especially of the grain family

Grains are very difficult to subdivide into their constituent elements; that is, to reduce to a solution so fine that assimilation will be perfect. A liberal use of the foods containing mineral salts aids very materially in this process of solution.

DIFFERENCE BETWEEN DIGESTIBILITY AND ASSIMILABILITY

The true interpretation of the word "digestion" is the preparation of food by the action of:

1 The saliva

2 The gastric juice

3 The bile, and

4 The pancreatic juice

When food is properly prepared by mastication by the time it reaches the pancreas, it should be thoroughly split up or subdivided, in which state it is ready for assimilation.

The true interpretation of the word "assimilation" is the absorption of all food substances through the walls of the intestinal tract, and the final passing of them into the circulation.

It is nothing unusual, however, for a person to become afflicted with pre-

digestion, and, at the same time, with poor or faulty assimilation; in other words, digestion being too rapid, and assimilation being too slow. This condition frequently occurs in cases of superacidity. On account of the excess of acid, the food digests or passes from the stomach prematurely; that is, before it has been dissolved by the action of the hydrochloric acid. The food, thus supercharged with acid, passes from the stomach into the lower intestines, and sets up a condition of irritation. This irritation or swelling of the mucous surface (lining) of the intestines, closes the small canals, or winking valves, as they are sometimes called, thus seriously interfering with the passing of the dissolved food matter into the circulation.

The following table is designed to show the comparative assimilability of the leading articles of food, together with their starch, sugar, and water content:

TABLE SHOWING COMPARATIVE ASSIMILABILITY AND CARBOHYDRATE AND WATER CONTENT OF CEREALS, LEGUMES, AND VEGETABLES

FOOD	Assimilability	Percentage of		
		Starch	Sugar	Water
CEREALS				
Barley	Somewhat Difficult	61.6	1.5	13.7
Buckwheat	Difficult	48.0	6.0	12.0
Corn	Difficult	60.5	3.0	12.2
Oats	Difficult	54.0	2.0	12.0
Rice	Medium	79.1	0.4	13.0
Rye	Somewhat Difficult	62.0	0.95	15.06
Wheat	Medium	62.0	0.95	15.08
LEGUMES				
Beans—dried	Good	53.0	3.0	12.0
Lentils—dried	Good	50.0	2.0	11.0
Peas—dried	Good	57.0	4.0	11.0
*VEGETABLES				
Banana—very ripe	Very good	8.0	11.0	48.0
Beets	Good	1.7	7.8	68.0
Cabbage	Medium	4.3	——	78.0
Carrots	Very good	1.0	6.1	83.0
Parsnips	Very good	1.5	6.0	82.0
Potatoes Sweet	Good	24.4	5.6	69.0
Potatoes White	Very good	19.8	.7	72.0
Pumpkin	Very good	3.9	2.0	74.3
Squash	Very good	4.1	1.2	83.0
Turnips	Good	5.1	2.1	91.0

*While all the vegetables mentioned in the above table belong to the carbohydrate class, yet the starch element contained in them is very much more assimilable than the starch contained in grains or legumes, therefore these vegetables may be eaten freely by those having rheumatic or gouty tendencies.

The starch and the sugar content in fresh vegetables appears low owing to the fact that they contain a large percentage of water. Eliminating the water, these foods rank in their starch and sugar content with cereals and legumes, and are much more easily digested and assimilated. In other words, if the chemist should reduce the water content to the same per cent as that of cereals, the carbohydrate content would rise in the same ratio as the water content is reduced. Both the starch and the sugar content of these vegetables is more digestible, and more readily assimilated than the starch and the sugar found in cereals and legumes.

PURPOSE OF THE VIENO TABLE

The student should remember that not only the quantity but the quality of food must be considered. The vieno system of food measurement, as herein explained, is the simplest system of food measurement that has ever been published. It is amply complete, and accurate enough for the purpose for which it is intended, and that is the calculation of the energy and the available nitrogen contained in natural dietaries.

This measurement is really a quantitative measurement; that is, it measures the quantity, not the quality. In order to have a full knowledge of a bill of fare, it is necessary to know, in addition to the quantity, the exact chemical nature of each particular food, and also to know the other foods with which that food will combine.

This food table tells accurately the amount of energy that may be derived

from food by chemical analysis, but it does not tell the amount of energy that the body must expend in the work of assimilation. This cannot be given in a table, because it varies with the individual and the condition of his digestive organs.

LESSON XIV

VIENO SYSTEM
OF
FOOD MEASUREMENT

LESSON XIV

Vieno System of Food Measurement

The amount of nutrition contained in a given quantity of food is often a determining factor in curative dietetics.

The two most important things to be considered in prescribing foods are:

1 The amount of energy contained in a given quantity

2 The amount of available nitrogen or tissue-building material in a given quantity

ENERGY

Energy is the power to do work. That form of energy with which we are most familiar is mechanical energy, as raising a stone or turning a wheel.

Heat is another form of energy. Heat and work can be converted into each other. The steam-engine turns heat into work, while a "hot box" on a car-wheel is a case of work being turned back into heat.

Experience shows that a definite amount of heat will yield a definite amount of work, so that the amount of heat produced by a given amount of food, when combined with oxygen, is taken as a measure of its energy. This is ordinarily expressed in calories, a calorie being the amount of heat required to raise the temperature of one thousand grams of water one degree on the centigrade thermometer scale.

Amount of heat a food produces determines its energy

The use of these terms need not concern the student. Instead of using the calorie I will use a unit which is equal to one hundred calories. I have selected a unit of this size because it gives about the ordinary service of food at meals which is easily measured and remembered.

NITROGEN

Nitrogen is the chemical element that is most concerned with the function of life. All animal tissue contains nitrogen, which forms about one-sixth part, by weight, of all the nitrogenous or protein substances.

If we were to take a hundred pounds of lean meat, or muscle, and evaporate from it all the water, we would have about eighteen pounds of dry material left. If we should analyze this dry substance, we would find that about one-sixth, or three pounds, would be the element nitrogen. Thus we say that muscle contains eighteen per cent of protein, or three per cent of nitrogen. In ordinary practise the protein is mixed with fats and salts, and cannot be measured by simply drying out the water, so the chemist finds the amount of nitrogen present and multiplies by 6.25, which gives

Proportion of Nitrogen in lean meat

about the correct per cent of protein. This method is not exact because the per cent of nitrogen in various proteids is not always the same, but it will give an intelligent average. I will discard the use of the term protein, and refer to the amount of nitrogen directly.

All compounds of the element nitrogen are not available as food. For example: The nitrogen of the air, of ammonia gas, or gunpowder cannot be utilized in the animal body. The nitrogen in foods only refers to available nitrogen. Compounds containing other forms of nitrogen are not foods, but are frequently poisons.

SYSTEMS OF FOOD MEASUREMENTS COMPARED

THE "OLD" SYSTEM

Under the old system of food measurement, feeding the human body cannot be made a practical science for the masses, therefore a new system becomes neces-

sary. That we may more fully appreciate the value of a new system, let us consider the methods hitherto available.

Suppose a man is using two quarts of milk a day, and wishes to determine the amount of available nitrogen or tissue-building material and energy it contains. Under the old system he must get a book on food analysis, or send to Washington for a Government bulletin. If he does not understand the meaning of the terms and figures used, the tables would be useless to him until he goes to a chemist to have them explained. He is now ready to work out the nutritive value of his milk, and proceeds as follows:

First, he gets the number of cu cm in the milk, thus—952.8 (number cu cm in 1 quart) x 2 = 1905.6, number of cu cm in 2 quarts of milk. Second, he gets the weight of his milk in grams—1.032 (number grams in 1 cu cm of milk) x 1905.6 = 1966.57, number of grams in 2 quarts of milk.

He now turns to a table of analysis which tells him that milk contains 3 per cent of protein, 3½ per cent of fat, and 4½ per cent of sugar. As the amount of nitrogen in milk is approximately one-sixth of its entire protein, he would now get 16 per cent of the 3 per cent (.16 x .03 =.0048), which is the percentage of nitrogen contained in milk.

His next step would be—1966.57 (number grams in 2 quarts of milk) x .0048 = 9.44, the number of grams of nitrogen in 2 quarts of milk.

I will not explain the way in which the energy would have to be figured, but will merely give the arithmetical processes by which the result is obtained:

3 × 4.1 = 12.3
3.5 × 9.3 = 32.55
4.5 × 4.1 = 18.45
12.3 + 32.55 + 18.45 = 63.30
1966.57 × 63.30 = 124483.88
124483.88 ÷ 100 = 1244, the No. of calories or energy (heat units) contained in two quarts of milk.

THE NEW OR "VIENO" SYSTEM

To a unit of food-energy which is equal to one hundred calories (see last paragraph on "Energy"), I have given the name of *Vieno*, derived from "vital" and "energy," and pronounced *vi-ēn-o*. The Vieno system, therefore, will measure all foods by vi-en-os, or units of energy equal to one hundred of the chemist's calories. One vieno of milk is one-sixth of a quart, or two-thirds of an ordinary glass. From this it is readily seen that two quarts of milk will give twelve vienos of energy, or, if we wish to express it in the chemist's term, twelve hundred calories.

Derivation of the word Vieno

The table also states that milk has a nitrogen factor of .8. Therefore, if we wish to know the amount of nitrogen in the two quarts of milk, all we need do is to multiply the number of vienos by the nitrogen factor; 12 x .8=9.6, which figure

How to compute amount of nitrogen in food

represents the nitrogen consumption expressed in grams. (See explanation of fourth column of table.) These results are practically the same as those obtained by the old system of computation, but expressed in simpler terms. Thus we see that the vieno system of computing food values is unique in its simplicity, and will be a very material aid in putting Food Science on a practical basis.

NECESSITY FOR A SIMPLE SYSTEM

Things are commonly measured by volume, or by weight. That volume could not be made sufficiently accurate in the measurement of food values is evident. A bushel of lettuce leaves would contain much less food value than a bushel of wheat. Weight would seem to be a fairer way to compare foods, but all foods contain

Neither volume nor weight are correct standards for measuring food values

water, which may vary from five to ninety-five per cent. A pound of turnips, which is nine-tenths water, would not be comparable with sugar, which has scarcely any water.

Even if it were not for the water, weight would not be a fair method of comparison because some foods are of more value per pound than others, owing to their difference in chemical composition. For instance, a pound of butter gives about two and one-fourth times as much heat to the body as sugar.

As before mentioned, the two chief food factors which we ought to measure are energy-producing and tissue-building power.

All true foods when assimilated in the body produce some energy. In fact, only such substances as produce bodily energy, when combined with the oxygen taken in through the lungs, can be correctly termed food.

What constitutes a true food

I have taken this energy-producing power of food as the best basis for measurement and comparison. The nitrogen could have been taken as a unit, and the energy figured by a table, but it is simpler to use energy as a unit (as given in column 3, p. 655), and figure the nitrogen in the various foods by means of a table which gives the amount of nitrogen per unit of energy. (Column 4, p. 655.)

Multiplication of units of energy (column 3) by the nitrogen factor (column 4) is necessary because the ratio of nitrogen to energy is different in each food.

EXPLANATION OF TABLE

In the table that follows, I have attempted to give in the simplest way the amount of each particular food that one vieno equals.

The second column shows, in the plainest language possible, what one vieno of

food equals—as, one vieno of barley equals one ounce; or, one vieno of nuts equals one rounded tablespoonful, etc. This method is, of course, only approximate, as in some foods it is impossible to find a simple term to express the amount of one vieno. This is especially true of cooked foods because of the varied amounts of water contained. In such cases the way for the student to become familiar with a vieno is to weigh one pound of the raw material, and, after it is cooked, weigh it again, and then calculate the water content.

The definition given in the second column in the case of milk, butter, eggs, and cheese is fairly accurate. The description given in the case of cereals and bread is also fairly accurate. In the list of fresh vegetables, no attempt has been made to describe one vieno by volume, as, vegetables being loose and bulky, it is practical to measure them only by weight.

In the case of fresh fruits, one vieno has been defined as "one large orange" or "six plums," etc. In such cases allowance for the non-edible portion has been made; all weights given in the table consider only the edible portion.

Only the edible portion of food considered

In the case of nuts, the definition of a vieno in so many spoonfuls is fairly accurate. This is done only as an illustration, and not continued throughout the table. The student should use only the second column of the table for rough work, and to help him figure the approximate amount of one vieno.

The third column of the table, which gives the number of vienos or the amount of heat-energy in one pound, is the column to which the student should refer in his work. A pound of food referred to in this column invariably means one pound of the edible portion.

The way for the student to calculate the amount of food in one vieno is to take

a pound of the food that he is to use and divide it equally into as many portions as the number in the third column. For example: If one pound of wheat is given as equal to sixteen vienos, the student should weigh a pound of wheat and divide it into sixteen portions, and each of these portions will equal one vieno.

Simple method of reducing food to vienos

The fourth column of the table gives the approximate nitrogen factor; that is, the percentage of nitrogen by weight in one vieno. This column is to be used for computing the amount of nitrogen in the diet under all ordinary circumstances. The student should take the total number of vienos of each food and multiply this number by the nitrogen factor. The product will be the approximate amount of the nitrogen consumed, expressed in grams. *This is the direct method of ascertaining the amount of available nitrogen in food.*

The nitrogen factor simplified

If in reading other works, the student finds the amount of nitrogen given in decigrams, he needs only to divide by ten in order to reduce it to this system, as a decigram is one-tenth of a gram. Likewise, protein can be reduced to grams, or decigrams, by a simple process of multiplication and division, as follows: Sixty grams of protein contains practically ten grams (one hundred decigrams) of nitrogen. Divide the amount of protein by six to change protein to the nitrogen unit. That is (Protein ÷ 6) = amount of nitrogen in grams.

Grams reduced to vienos

The old-fashioned food table gave the amount of protein in per cent by weight, making it necessary to weigh the food, figure the amount of protein by multiplying the weight by the per cent, and then reducing this according to the rule given above. I explain this so that the student may be able to compare results expressed in the old table, with the vieno method,

but in all practical work the student should use only this *direct* method which is much more simple and accurate.

The fifth column of the table gives the weight of one vieno in grams. This adds no new information, but only gives the weight of one vieno in the metric system. It should be used by those who wish to be accurate in their work, or by those who take a scientific interest in their dietary.

The last column of the table gives the actual amount of nitrogen in one vieno of food expressed in grams. This is the accurate figure from which the approximate nitrogen factor for ordinary use has been derived. For example: The actual amount of nitrogen in one vieno of chestnuts is .396. If this number is multiplied by the number of vienos of chestnuts eaten, we would have the actual number of grams of nitrogen consumed. Suppose ten vienos of chestnuts are eaten; we would multiply .396 by ten,

Examples for the student who desires to be exact

which would give us 3.96 grams of nitrogen. For ordinary purposes, I use the nearest decimal, which is .4, and which I give in the fourth column as the nitrogen factor. Those who wish to figure the nitrogen with scientific accuracy should use the figures given in the last column of the table, as in the example I have given.

The Vieno system of food measurement is new, and is intended to give to the practitioner and to the housewife the greatest aid in balancing or proportioning the diet. I have therefore included in the following tables, all classes of foods, many of which I do not recommend or use in my scientific work.

TABLE OF FOOD MEASUREMENTS

DIRECT METHOD OF CALCULATING AVAILABLE NITROGEN IN FOOD

Multiplying the number of vienos (column 3) by the nitrogen factor (column 4) will give the amount of available nitrogen in the various foods, expressed in grams

1	2	3	4	5	6
Name of Food	Quantity equaling one vieno *(100 calories)	No. vienos or amount of heat energy in one pound	Nitrogen factor	Weight of one vieno in grams	Grams of nitrogen in one vieno
CEREAL FOODS					
Barley, pearled	One ounce	16	.4	27.5	.37
BREAD—					
Graham	Loaf size, ¾ in. thick	12	.6	37.5	.59
White	Loaf size, ¾ in. thick	12	.6	39.3	.58

TABLE OF FOOD MEASUREMENTS—(Continued)

1	2	3	4	5	6
Name of Food	Quantity equaling one vieno *(100 calories)	No. vienos or amount of heat energy in one pound	Nitrogen factor	Weight of one vieno in grams	Grams of nitrogen in one vieno
Christian's Vieno bran	Two ounces	8	.3	21.2	.30
Christian's Vieno self-raising bran meal	1½ ounces	12	.4	33.5	.55
Corn-meal	One ounce	16	.4	27.4	.41
Corn-starch	One ounce, scant	17	.0	27.1	.00
Crackers	Four, average size	19	.4	23.8	.39
Hominy	One ounce	16	.4	27.5	.36
Macaroni or spaghetti	One ounce	16	.6	27.2	.58
Oatmeal or rolled oats	Scant ounce	15	.6	24.4	.63
Rice	One ounce	16	.4	27.8	.36
Rye flour	One ounce	16	.3	27.8	.30

White flour	One ounce	16	.5	27.9	.49
Whole wheat or graham flour	One ounce	16	.6	27.8	.61
Whole wheat	One ounce	16	.6	27.8	.61
Dairy Products					
Butter	Not quite an inch cube	36	.0	12.6	.00
Cheese—					
Cottage	Three ounces	5	3.0	89.0	2.97
Full cream	Portion size of walnut	20	1.0	22.0	1.01
Cream (20% fat)	Five tablespoonfuls	10	.2	45.0	.17
Milk—					
Buttermilk	One full glass	2	1.3	274.0	1.32
Condensed	Three tablespoonfuls	15	.4	30.0	.42
Skimmed	One full glass	2	1.5	267.0	1.46
Whole	Two-thirds of a glass	3	.8	140.0	.78
Fish					
Fresh fish (Run of the market)	Quarter of a lb.	6	3.1	102.0	3.13

TABLE OF FOOD MEASUREMENTS—(Continued)

1	2	3	4	5	6
Name of Food	Quantity equaling one vieno *(100 calories)	No. vienos or amount of heat energy in one pound	Nitrogen factor	Weight of one vieno in grams	Grams of nitrogen in one vieno
Fruit					
Apples	One, 2½ in. thick	3	.1	156.4	.10
Apricots	Six of moderate size	3	.3	168.0	.29
Bananas	One large.	5	.2	98.6	.21
Berries—					
Blackberries	One moderate sauce-dish	3	.3	168.0	.35
Raspberries	One moderate sauce-dish	3	.4	146.3	.39
Strawberries	One sauce-dish	2	.4	252.0	.40
Cantaloup	One five-inch in diameter	2	.3	299.0	.29
Cherries	One moderate sauce-dish	4	.2	103.0	.16

Currants (dried)	Three tablespoonfuls	13	.1	33.4	.11
Dates	Five, average size	16	.1	28.1	.09
Figs	Two, average size	15	.2	30.7	.21
Grapes	One moderate sauce-dish	4	.2	108.8	.23
Lemons	Three, moderate size	2	.3	221.0	.35
Olive-oil	One tablespoonful	42	.0	10.1	.00
Olives (ripe)	Eight	12	.0	37.5	.00
Oranges	One large orange	2	.2	189.0	.24
Pears	One, large	3	.2	154.0	.15
Plums	Six, small	4	.2	115.0	.18
Prunes	Three, large	14	.1	32.4	.11
Raisins	Two heaping tablespoonfuls	16	.1	28.3	.12
Watermelon	1½ pound melon meat	1	.2	324.0	.20
Meat					
Bacon (smoked)	Slice ¼ in. thick, 4 in. long	80	.2	15.0	.24
Chops—					
Lamb	Portion size of an egg	15	.9	29.4	.88
Pork (medium fat)	Slice ½ in. thick, 2 in. square	16	.8	28.7	.76
Ham (smoked) (medium fat)	Slice ½ in. thick, 2 in. square	19	.6	23.3	.57

TABLE OF FOOD MEASUREMENTS—(Continued)

1	2	3	4	5	6
Name of Food	Quantity equaling one vieno *(100 calories)	No. vienos or amount of heat energy in one pound	Nitrogen factor	Weight of one vieno in grams	Grams of nitrogen in one vieno
Leg of mutton (medium fat)	Portion size of an egg	11	1.2	41.0	1.20
Ribs of beef	Portion size of an egg	15	.9	31.3	.87
STEAK—					
Porterhouse	Slice ½ in. thick, 2 in. square	13	.9	35.7	.90
Round beef	Slice ½ in. thick, 2 in. square	12	1.6	47.7	1.55
NUTS					
Almonds	One heaping tablespoonful.	30	.5	15.0	.53
Brazil-nuts	One heaping tablespoonful.	32	.4	13.9	.38

Chestnuts	One heaping tablespoonful.	11	.4	40.3	.40
Cocoanuts, fresh	Half an ounce	32	.2	16.4	.16
Cocoanut, prepared	Two rounded tablespoonfuls	31	.2	14.5	.15
Filberts	One heaping tablespoonful.	33	.3	13.8	.34
Hickory-nuts	One rounded tablespoonful	33	.3	13.6	.33
Peanuts	One heaping tablespoonful.	26	.7	17.7	.73
Pecans	One rounded tablespoonful	34	.2	13.1	.23
Pignolias	One rounded tablespoonful	28	.8	15.9	.83
Pistachios	One heaping tablespoonful.	29	.5	15.2	.54
WALNUTS—					
Black	One heaping tablespoonful.	31	.6	14.6	.64
English	One heaping tablespoonful.	33	.4	14.6	.38
POULTRY AND EGGS					
Chicken (broiler)	Three ounces	7	3.1	90.0	3.09
Chicken (matured)	Two ounces	8	1.4	43.7	1.44
Eggs (albumin)	White of six eggs	2	3.6	181.4	3.56
Eggs (whole)	One large egg	8	1.4	63.0	1.35
Eggs (yolk)	Yolk of very large egg	17	.7	26.0	.66
Turkey	1¾ ounces	10	1.1	33.3	1.12

TABLE OF FOOD MEASUREMENTS—(Continued)

1	2	3	4	5	6
Name of Food	Quantity equaling one vieno *(100 calories)	No. vienos or amount of heat energy in one pound	Nitrogen factor	Weight of one vieno in grams	Grams of nitrogen in one vieno
SUGARS					
Honey	One ounce	16	.0	29.8	.02
Molasses—New Orleans	1½ ounces	13	.0	36.5	.01
Maple-sirup	Four tablespoonfuls	13	.0	34.8	.00
SUGAR—					
Cane, granulated	Three rounded teaspoonfuls	19	.0	24.4	.00
Maple	One ounce	16	.0	30.0	.00
VEGETABLES					
BEANS—					
Lima (dried)	One ounce	16	.8	27.9	.81
Navy (dried)	One ounce	16	1.1	28.1	1.13

String	Half a pound	2	.8	232.6	.85
Beets	Half a pound	2	.5	211.0	.54
Cabbage	Three-fourths pound	1	.8	313.0	.80
Carrots	Half a pound	2	.5	215.0	.54
Celery	One pound	1	.9	533.5	.94
Corn (green)	One large ear	5	.6	96.5	.62
Lettuce	One pound	1	1.0	504.0	.98
Onions	Half a pound	2	.5	202.0	.52
Parsnips	Six ounces	2	.5	181.0	.46
PEAS—					
Dried	One ounce	16	1.1	27.4	1.06
Green	Quarter of a pound	4	1.1	97.5	1.02
POTATOES—					
Sweet	Three ounces	6	.2	80.0	.23
White	Quarter of a pound	4	.4	118.0	.41
Spinach	One pound	1	1.5	412.0	1.49
Squash	Half a pound	2	.5	211.0	.47
Tomatoes	One pound	1	.6	408.0	.65
Turnips	Half a pound	2	.5	245.0	.51

HANDY TABLE

One pound = 16 ounces
One pound = 453.57 grams
One ounce = 28.35 grams

The weight of such foods as meat, fruit, etc., is so nearly equal to that of water that the weight may be calculated from the size, if that is known.

One cubic inch = 16.5 grams
One cubic inch = about a half ounce
One cubic foot = 62 pounds
One gallon = 8 pounds
One pint = 476.4 grams

Milk is slightly heavier than water, while oils or fats are lighter.

One quart of milk = 980 grams
One quart of olive-oil = 876 grams
One average egg = 50 grams
One average olive = 6 grams
One *Vieno* = 100 calories
One decigram nitrogen = $\frac{3}{5}$ of a gram of protein

LESSON XV

CURATIVE AND REMEDIAL MENUS CONCLUDED

LESSON XV

Curative and Remedial Menus

INTRODUCTION

Scientific eating leads toward simplicity

Scientific eating consists in selecting the food the body requires according to age, occupation, and climate. These requirements can be supplied with a very few articles. The necessary changes in diet can always be made by varying the proportions. It is possible to select, for each of the four seasons of the year, three or four articles that will contain all the elements of nourishment the body needs, therefore true food science leads one inevitably toward the mono-diet plan; that is, making a meal of only one kind of food. Owing to our inherent desire

to sit at the "groaning table" we may yet be a long distance from the mono-diet plan, but the science of human nutrition points with unerring certainty toward simplicity. It should be remembered, however, that one may eat, under nearly all conditions except extreme superacidity all he desires of one or two things—one preferred.

In the light of modern medicine, no food has any specific curative property.

How foods become curative

Foods become curative only as they remove abnormal conditions, and they will remove abnormal conditions just to the extent that they can be perfectly digested and assimilated, and to the extent that waste matter is thoroughly eliminated from the body. In this way all possible resistance is removed, and Nature will build up the dis-eased and broken-down tissue in obedience to the law of animal evolution. This constructive process we call "curing."

While the menus for each season of the year may seem to vary but little, especially when compared with the conventional omnivorous diet, yet experience has proved that the fewer the articles composing the meal, the better will be the results.

COOKING

SOME IMPORTANT FACTS REVEALED BY MODERN SCIENCE

The object of cooking is to tear down the cell-structure of foods, and to make them more digestible. After the cell-structure is demolished, every degree of heat to which foods are subjected injures the foods instead of improving them.

GRAINS

Grains should be cooked whole. They should be cleansed, well covered with

water, and boiled until the grains burst open as in making old-fashioned corn hominy. This will often take from three to four hours' constant boiling.

Cereals prepared in this way are more delicious, more nourishing, and far more healthful than any of the prepared or patented "breakfast foods," while the cost is perhaps about one-eighth or one-tenth of that of the popular patented products.

VEGETABLES

The old or popular method of cooking vegetables is to cover them generously with water and to boil them much longer than is necessary, then to drain off the water, season, and serve. By this process the mineral salts, in many cases the most valuable part of the food, are dissolved, passed into the water, and lost. In this way many excellent articles of food are greatly impoverished and reduced perhaps 50 per cent in nutritive value.

The time vegetables are cooked should be measured by their solidity. As an example, spinach can be thoroughly cooked in about fifteen minutes. In this way some of its elements are volatilized, giving it a delicious flavor and taste, while if cooked in an abundance of water, from half to three-quarters of an hour, which is the customary way, its best nutritive elements are lost by draining away the water, and it is rendered almost tasteless.

COOKING EN CASSEROLE

All succulent and watery vegetables such as cabbage and spinach, beans, carrots, onions, parsnips, peas, squash, turnips, etc., should be cooked in a casserole dish.

Prepare vegetables in the usual manner as for boiling. A few tablespoonfuls of water may be added to such articles as green beans and peas, beets, carrots, cauliflower, onions, parsnips, etc. Cover,

and place in an ordinary baking oven until the vegetable is thoroughly cooked or softened. In this way vegetables in reality are cooked in their own juices, rendered much softer, more digestible, more delicious, and all their mineral salts and other nutritive elements are preserved, making them also more nutritious.

RICE AND MACARONI

Rice, macaroni, and spaghetti are exceptions to the above rules. They should be cooked in an abundance of water and thoroughly drained. In this way the excess of starch which they contain is disposed of, and their nutritive elements are better balanced. They are also rendered much more palatable and digestible.

FRUITS

If fruits can be obtained thoroughly ripe, they should never be cooked.

Dried or evaporated fruits can be prepared for the table by soaking them thoroughly in plain water for a few hours, or over night. In this way the green and inferior pieces are exposed and can be discarded. The excess of water can be boiled down to a sirup and poured over the fruit. In this way the fruit-sugar is developed, and sweetening with cane-sugar becomes unnecessary.

Soaking as above described is merely a process of putting back into the fruit the water that was taken out of it by evaporation or dehydration.

It is evident that that part of the fruit which will not soften sufficiently by soaking, to become palatable, was not ripe enough for food.

CANNED FOODS

The average table, especially hotels and restaurants, are supplied largely from canned foods. A process of perfect

preservation of foods has never been invented and probably never will be. No matter how well foods may taste, they undergo constant chemical changes from the time they leave the ground or parent stalk until they are thoroughly decomposed. All vegetables, therefore, should be used fresh, if possible.

BUTTERMILK

An excellent quality of buttermilk may be made as follows: Allow sweet milk to stand (well covered) in a warm room until it thickens or coagulates; whip with an ordinary rotary egg beater without removing the cream.

HOME-MADE BUTTER

Sweet butter may be made in a few minutes from ordinary cream by placing it in a deep bowl and whipping with a rotary egg beater.

SUGGESTIONS CONCERNING THE SELECTION AND THE PREPARATION OF CERTAIN ARTICLES MENTIONED IN THE MENUS

THE BANANA

The banana is a vegetable. It is one of our most valuable foods, as well as the most prolific. It will produce more food per acre, with less care and labor, than any other plant that grows.

While the banana grows only in the tropical countries, it is equally as good and useful to people of the northern zones.

Bananas that are transported to the North are cut green, and often immature; that is, before they have attained their full growth. This latter variety should never be used. In their green and unripened state, they are wholly unfit for food, and for these reasons there has arisen a broadcast prejudice against this most excellent article of diet.

HOW TO SELECT AND RIPEN BANANAS

Care should be exercised to select the largest variety—only those that have attained their full growth on the parent tree. If bananas cannot be procured "dead ripe" from the dealer, they should be purchased, if possible, by the bunch, or a few of the lower "hands" can be purchased and left on the stalk. They should be kept in the open air (that is, uncovered), in an even, warm temperature, and the end of the stalk covered with a clean white cloth, or immersed in water, kept fresh by changing daily. In this way the banana will mature, ripen slowly, and be almost as delicious as if obtained ripe from its native tree.

Bananas should not be eaten until they are "dead ripe"—black spotted. In this state, the carbohydrates which they contain are as readily digestible as fresh milk.

BAKED BANANAS

Peel large ripe bananas; bake in an open pan in a very hot oven from ten to fifteen minutes, or until slightly brown.

Baked bananas make a delicious dessert served with either of the following:

a Cream
b Nut Butter
c Dairy Butter
d Both dairy butter and a sauce made by gradually diluting nut butter with a little water, until a smooth paste is formed

Bananas need much mastication, not for the purpose of reduction, but for the purpose of insalivation.

RECIPES

RECIPE FOR CODDLED EGG

Place an egg in a pint cup; cover with boiling water and allow to stand, covered, five or six minutes.

RECIPE FOR UNCOOKED EGGS

Break the number desired into a narrow bowl; add a teaspoonful of sugar to each egg, and a pinch of salt; whip *very briskly* with a rotary egg beater from five to eight minutes.

To each egg a teaspoonful of lemon juice and half a glass of milk may then be slowly whipped into the mixture, if desired.

RECIPE FOR BAKED OMELET

Whip two eggs very thoroughly for about five minutes; add a dash of salt, a dessert-spoonful each of corn-starch and of heavy cream. Bake very lightly in a small pan.

FISH AND FOWL

SELECTION AND PREPARATION

If we must eat the flesh of animals the young should be selected. It contains

more digestible protein, especially albumin, than the old or matured animal, and has had less time in which to become contaminated by unhygienic habits. Both fish and fowl should be baked, boiled, or broiled; never fried.

RECIPE FOR PREPARING GREEN PEAS IN THE POD

After thoroughly cleansing the desired amount of fresh tender peas, unshelled, put them into a covered pot or casserole dish; add a few spoonfuls of water, a little butter and salt, and cook slowly until thoroughly softened; serve in the pod.

The peas may be eaten by placing the pod between the teeth, and then giving it a gentle pull. This strips off the outer coating or pulp, leaving only the thin film of cellulose.

NOTE: The pea pulp, or substance upon the pod, is rich in mineral salts,

highly nutritious, slightly laxative, and an excellent aid in the digestion of other foods. It is a better balanced and a more valuable food than the pea.

PUMPKIN

Pumpkin may be made very delicious by stewing or boiling in just enough water to prevent burning. Mash well and put through a colander. Season and serve same as squash, or, prepare as directed, and bake until slightly brown.

VEGETABLE JUICE

Chop fine and boil carrots, peas, asparagus, or any other fresh vegetable from eight to ten minutes in sufficient water to make the amount of juice required; strain and serve.

The tender parts of the fresh vegetable may be thoroughly cooked, put through a colander, and served as a purée.

HOW TO MAKE SASSAFRAS TEA

Crush the bark of the red sassafras root, allowing a piece as large as a silver dime to each cup. Add the quantity of water desired; simmer from five to ten minutes. Drink with cream and sugar.

WHEAT BRAN

Wheat bran is the outer coating of the wheat grain. Chemically, it is pure cellulose, which is insoluble and indigestible in the ordinary digestive solvents of the body.

Wheat bran serves a valuable medicinal purpose in the stomach and in the alimentary tract. When introduced into the stomach, its cell structure fills with water, and it increases from four to eight times its size in its dry state. It excites both stomach and intestinal peristalsis, thereby preventing stomach indigestion,

and by carrying the water along down the intestinal tract, it prevents intestinal congestion, or what is commonly called constipation. Wheat bran may be properly called an intestinal broom or cleansing agent.

Man, in the process of preparing his food, has invented expensive and complicated machinery for removing all cellulose and roughness from his diet. He has suffered both stomach and intestinal congestion just to the extent that this refining process has been carried on. Bran puts back into the diet not only what modern milling methods have taken out of it, but that which civilized habits of refining have eliminated from our food. It therefore naturalizes the diet, promotes digestion, cleanses the mucous surfaces of both the stomach and the intestines, and prevents congestion in the ascending colon, which is the primary cause of appendicitis, so called.

BRAN MEAL

Bran meal is the product of the entire wheat, ground coarsely, and mixed with a certain per cent of wheat bran. It makes an excellent bread.

Bread made from bran meal acts on the digestive and the alimentary organs, the same as the pure bran, only in a milder capacity. It also aids the stomach in the digestion of other foods. It is more nourishing than wheat flour, for the reason that it is better balanced, containing all the carbohydrate and the proteid elements of the grain.

Bread made from bran meal is better in the form of gems baked in small gem rings.

This meal requires neither baking powder nor soda, and should not be sifted.

CHOICE OF MENUS

Wherever two menus are given, choice may be exercised, but whichever menu

is chosen, it should be taken in its entirety. In other words, do not select articles from one menu and combine them with articles mentioned in another menu. Neither should any article of food be eaten with a particular menu, other than that which is mentioned therein. By observing these suggestions, the proper combinations of food are observed, which is equally as important as the selections.

NOTE: In this volume there are some menus which contain combinations of food classed as No. 3 in Lesson XII, "Tables of Digestive Harmonies and Disharmonies," pp. 609 to 617 inclusive. This is explained by the fact that said "tables" are laid out for the normal person, while the menus were prescribed for the treatment of some special disorder, or for the purpose of removing some offending causes.

NORMAL MENUS

The following menus are intended for those possessing normal digestion and assimilation of food; that is, for those having no digestive disorders.

INTRODUCTION TO NORMAL MENUS

While a majority of the menus composing this volume were prescribed for the purpose of removing the causes of some specific disorder, a vast number of those treated remained under the care of the author long after they had become normal or cured, as the transition from dis-ease to health is usually termed.

Another large number of comparatively healthy persons, recognizing the relation between diet and health, came under the care of the writer for the purpose of having their diet selected, proportioned, and balanced according to age, occupation, and the season of the year.

The excellent results that were obtained, in nearly all such cases, emphasized the importance of giving a set of normal menus for normal people. All the following menus have been tested, under the direction of the author, and have been chosen because they gave the desired results.

SPRING MENU
FOR THE NORMAL CHILD

From 2 to 5 Years of Age

BREAKFAST

A few soaked prunes, with cream
A small portion of coarse cereal, thoroughly cooked
From one to two glasses of milk

LUNCHEON

A baked potato
Onions or carrots, well cooked
Milk

DINNER

Home-made vegetable soup or cream soup
Green peas or asparagus tips
A baked potato
Milk

SUMMER MENU
FOR THE NORMAL CHILD

From 2 to 5 Years of Age

BREAKFAST

One very ripe peach
A small portion of coarse cereal
A baked sweet potato
Milk

LUNCHEON

Cream of rice, bean, or pea soup—home-made
Whole wheat crackers, with butter
Milk

DINNER

A baked potato
Peas or lima beans
Whole wheat crackers or bran biscuits
Milk

FALL MENU
FOR THE NORMAL CHILD

From 2 to 5 Years of Age

BREAKFAST

Cantaloup or a very ripe peach
Coarse cereal
Milk

LUNCHEON

A baked potato or whole wheat gem
A coddled egg (See recipe, p. 677)
Milk or junket

DINNER

Cream soup—home-made
Mashed turnips or carrots
A very ripe banana, with cream and sugar

WINTER MENU
FOR THE NORMAL CHILD

From 2 to 5 Years of Age

BREAKFAST

A baked apple, with a little sugar
Cereal—small portion
Milk

LUNCHEON

One or two bananas
Milk

DINNER

Corn hominy—small portion; thoroughly cooked
Milk

The articles of food for children ranging from two to five years of age are about the same. The proportions, however, should be administered according to age.

The child from two to three years of age may be given a glass of milk between meals, but should eat a very light dinner, consisting of only two or three articles, while the child from three to five, especially after it has engaged in vigorous play, can, with safety, follow the menus herein prescribed.

SPRING MENU
FOR THE NORMAL YOUTH

From 5 to 10 Years of Age

BREAKFAST

A banana, with cream
Milk or an egg
Corn hominy

LUNCHEON

A potato, or whole wheat bread, with butter
Clabbered milk or cottage cheese

DINNER

Peas, turnips, or carrots
A potato—sweet or white
Milk or an egg

SUMMER MENU
FOR THE NORMAL YOUTH

From 5 to 10 Years of Age

BREAKFAST

A peach
Milk or an egg
Boiled rice, with either honey or sugar and cream

LUNCHEON

Tender corn or a potato
Milk

DINNER

Vegetable soup or cream soup
Asparagus or string beans
Tender corn or a potato
Gelatin or Junket
Milk

FALL MENU
FOR THE NORMAL YOUTH

From 5 to 10 Years of Age

BREAKFAST

Prunes or grapes
Cereal—a small portion
Cream
Milk

LUNCHEON

Boiled onions
Rice or potatoes
Milk

DINNER

One fresh vegetable
Milk, fish, or an egg
Potatoes or baked beans

WINTER MENU
FOR THE NORMAL YOUTH

From 5 to 10 Years of Age

BREAKFAST

Cereal
Honey
Milk

LUNCHEON

Cabbage or cauliflower
Potatoes or baked beans

DINNER

Boiled onions
Corn bread
Cottage cheese

SPRING MENU
FOR THE NORMAL YOUTH

From 10 to 15 Years of Age

BREAKFAST

Dried peaches—stewed
Oatmeal, or corn hominy, with either cream or butter
Milk

LUNCHEON

Rice with rich milk

DINNER

Potatoes, either sweet or white
Turnips, asparagus, or peas
Fish, junket, or an egg

SUMMER MENU
FOR THE NORMAL YOUTH

From 10 to 15 Years of Age

BREAKFAST

Cantaloup
A banana or a sweet potato
Corn cake with butter
Milk

LUNCHEON

Tender corn
Milk

DINNER

Vegetable soup or cream soup
Spinach, onions, carrots, peas, beans, asparagus
—any two of these
A potato or whole wheat bread

FALL MENU
FOR THE NORMAL YOUTH

From 10 to 15 Years of Age

BREAKFAST

A banana, with cream and nuts
Honey or maple-sirup
Corn cake
Milk

LUNCHEON

Baked sweet potatoes, with butter
Milk

DINNER

Carrots, parsnips, or squash
Potatoes, or corn bread, with butter
Milk
Nuts, raisins, and cream cheese

WINTER MENU
FOR THE NORMAL YOUTH

From 10 to 15 Years of Age

BREAKFAST

Oatmeal or flaked wheat, thoroughly cooked; serve with thin cream
A baked banana
Milk

LUNCHEON

One or two eggs
Whole wheat bread
Milk

DINNER

One or two fresh vegetables
Boiled rice or baked potatoes
Gelatin or junket
Milk

SPRING MENU
FOR THE NORMAL PERSON

From 15 to 20 Years of Age

BREAKFAST

A very ripe banana with cream and dates
Plain boiled wheat, or oatmeal, with cream
Milk

LUNCHEON

Home-baked beans
Whole wheat gems
Milk

DINNER

Cream or vegetable soup
Asparagus or peas
Rice or a baked potato
Egg custard or ice-cream
Milk or cocoa

SUMMER MENU
FOR THE NORMAL PERSON

From 15 to 20 Years of Age

BREAKFAST

Melon or peaches
One or two eggs with whole wheat gems
Milk

LUNCHEON

Fresh peas, beans, or carrots
Corn or potatoes
Milk—sweet or sour

DINNER

Boiled onions, beets, or squash
Potatoes or lima beans
Lettuce and tomato salad with nuts
Bran meal gems

FALL MENU
FOR THE NORMAL PERSON

From 15 to 20 Years of Age

BREAKFAST

Cantaloup
Corn cake with maple-sirup, or rice cake with honey
Milk

LUNCHEON

Broiled fish
Baked potatoes

DINNER

Cantaloup
Turnips, carrots, spinach, peas, beans, or onions—any two of these
Corn bread or baked potatoes
Milk or cocoa

WINTER MENU
FOR THE NORMAL PERSON

From 15 to 20 Years of Age

BREAKFAST

Soaked prunes
Rice, or corn hominy, with cream
Very ripe banana with nuts and cream

LUNCHEON

Whole wheat bread with nut butter and nuts
Rich milk

DINNER

Soup
Winter squash or stewed pumpkin
Sweet potatoes
Celery and nuts

SPRING MENU
FOR THE NORMAL PERSON

From 20 to 33 Years of Age

BREAKFAST

Cherries or very sweet berries with sugar—no cream
Cereal with butter
One or two eggs
Whole wheat muffins
Milk or cocoa

LUNCHEON

Peas in the pod
Baked potatoes or whole wheat gems
Buttermilk

DINNER

Soup
Asparagus or fresh peas
Potatoes
A green salad—optional
Bran meal gems

SUMMER MENU
FOR THE NORMAL PERSON

From 20 to 33 Years of Age

BREAKFAST

Cantaloup or peaches
Coddled eggs
Whole wheat or corn muffins
Cocoa or milk

LUNCHEON

Boiled corn
Lettuce and tomato salad, with nuts and raisins

DINNER

A light soup
One or two fresh vegetables
Rice or tender corn
Ice-cream or gelatin

FALL MENU
FOR THE NORMAL PERSON

From 20 to 33 Years of Age

BREAKFAST

Choice of non-acid fruit
Two baked bananas with cream
Whole wheat, boiled
Nuts
Milk or cocoa

LUNCHEON

Home-baked beans
Lettuce, or celery, with nuts
Cottage cheese with whole wheat bread

DINNER

Soup—optional
Sweet or white potato
String or lima beans
Lettuce, or romaine, with nuts
Whole wheat or bran meal gems

WINTER MENU
FOR THE NORMAL PERSON

From 20 to 33 Years of Age

BREAKFAST

A very ripe banana with dates, nuts, and cream
Oatmeal or corn hominy—choice; small portion
Milk or cocoa

LUNCHEON

A poached egg or a baked potato
A glass of buttermilk

DINNER

Tender fish, broiled
Baked potatoes
Lettuce, or celery, with nuts and raisins

SPRING MENU
FOR THE NORMAL PERSON

From 33 to 50 Years of Age

BREAKFAST

Boiled whole wheat, or hominy, or corn bread
Two eggs or a bowl of clabbered milk

LUNCHEON

One whipped egg and a pint of milk
A whole wheat cracker or a baked potato

DINNER

Cream soup
Asparagus, peas, turnips, or carrots
Potatoes or baked beans

SUMMER MENU
FOR THE NORMAL PERSON

From 33 to 50 Years of Age

BREAKFAST

Berries, peaches, or melon
A baked sweet potato
A banana (very ripe) with nuts, cream, and raisins
Milk or cocoa

LUNCHEON

Tender corn on the cob, with butter
A glass of milk—optional

DINNER

Fresh peas, beans, cabbage, Brussels sprouts, beets—any two of these
Green corn or a potato
Lettuce and tomato salad, with nuts
Orange ice or peach ice

FALL MENU
FOR THE NORMAL PERSON

From 33 to 50 Years of Age

BREAKFAST

Two large, very ripe bananas, baked; serve with cream
Whole wheat or graham gems
One egg or a glass of milk

LUNCHEON

A large, baked potato and a poached egg
Cocoa or chocolate

DINNER

Soup—cream of celery or tomato
Turnips and lima beans
Bran meal gems or a baked potato
Cocoa or chocolate

WINTER MENU
FOR THE NORMAL PERSON

From 33 to 50 Years of Age

BREAKFAST

Two eggs, coddled
Whole wheat muffins
A cup of chocolate or a cup of hot water with sugar and cream

LUNCHEON

Home-baked beans
Lettuce or celery
A few nuts

DINNER

Carrots, parsnips, or cabbage
A baked potato
Broiled fish or a nut omelet
Cocoa, chocolate, or sassafras tea

NOTE: Sassafras tea is made from the bark of red sassafras. (See p. 681.)

SPRING MENU
FOR THE NORMAL PERSON

From 50 to 65 Years of Age

BREAKFAST

A cup of hot water with milk or sugar
A coddled egg and a baked potato

LUNCHEON

Junket or a bowl of clabbered milk
One or two baked bananas

DINNER

Peas or asparagus
New potatoes or bran meal gems
A cup of cocoa or a cup of hot water with cream

SUMMER MENU
FOR THE NORMAL PERSON

From 50 to 65 Years of Age

BREAKFAST

Peaches, plums, or melon
Coarse cereal with cream
Cocoa or hot water with cream

LUNCHEON

A sweet potato with butter
Cheese with water-cracker
Milk or chocolate

DINNER

Peas, beans, or carrots
Lettuce or spinach
Green corn or a potato
Cottage cheese with cream and a water-cracker

FALL MENU
FOR THE NORMAL PERSON

From 50 to 65 Years of Age

BREAKFAST

A bunch of grapes or a melon
Bran meal gems or plain boiled wheat
Cocoa or hot water with cream

LUNCHEON

Very ripe bananas with cream
Dates and nuts
A glass of milk

DINNER

Lima beans and creamed onions
A baked potato
Whole wheat or bran meal gems

WINTER MENU
FOR THE NORMAL PERSON

From 50 to 65 Years of Age

BREAKFAST

Soaked prunes
Baked chestnuts
Clabbered milk or junket

LUNCHEON

A bowl of milk with boiled rice

DINNER

Baked onions and winter squash
Baked beans
A cup of cocoa
One or two whole wheat crackers and cottage cheese

SPRING MENU
FOR THE NORMAL PERSON

From 65 to 80 Years of Age

BREAKFAST

Two or three very ripe bananas, baked; serve with cream
Nuts, raisins, and either cream or cottage cheese
Cocoa or hot water

LUNCHEON

A bowl of sour milk
Rye bread or bran meal gems

DINNER

Cabbage, cauliflower, carrots, or squash
A potato
Cheese or an egg

NOTE: If there is a tendency toward rheumatism, gout, or lumbago, eggs should be omitted.

SUMMER MENU
FOR THE NORMAL PERSON

From 65 to 80 Years of Age

BREAKFAST

Peaches, pears, grapes, or melon
A baked sweet potato or potato cakes
Sassafras tea with cream
(See recipe, p. 681)

LUNCHEON

String beans or new peas
Rye bread
Cottage cheese

DINNER

Carrots, squash, beets, or onions
Lima beans or a potato
Buttermilk
Bran meal gems

FALL MENU
FOR THE NORMAL PERSON

From 65 to 80 Years of Age

BREAKFAST

Melon, persimmons, or a baked apple
Boiled chestnuts or rice with cream
A cup of chocolate or a cup of hot water

LUNCHEON

A bowl of milk with corn bread

DINNER

Boiled onions, carrots, or stewed pumpkin
A potato—sweet or white
A baked banana with cream cheese
A cup of cocoa or chocolate

WINTER MENU
FOR THE NORMAL PERSON

From 65 to 80 Years of Age

BREAKFAST

Soaked prunes
Boiled wheat—small portion
Cream, hot water, or chocolate

LUNCHEON

A Spanish onion cooked en casserole
A baked potato
Buttermilk

DINNER

Stewed pumpkin or winter squash
A sweet potato
Broiled fish—small portion
Cocoa

SPRING MENU
FOR THE NORMAL PERSON

From 85 to 100 Years of Age

BREAKFAST

Two baked bananas, with cream
Two egg whites, whipped into a glass of milk

LUNCHEON

New peas in the pod (See recipe p. 679)
A glass of sour milk

DINNER

Bean soup
Baked sweet or white potatoes
Cottage cheese with cream and sugar

SUMMER MENU
FOR THE NORMAL PERSON

From 85 to 100 Years of Age

BREAKFAST

Cantaloup
A bowl of clabbered milk
Bran meal gems

LUNCHEON

Purée of rice with milk

DINNER

A baked or boiled sweet potato
Purée of peas
Egg custard or gelatin

FALL MENU
FOR THE NORMAL PERSON

From 85 to 100 Years of Age

BREAKFAST

Wheat flakes, thoroughly cooked; serve with cream
Warm milk

LUNCHEON

A coddled egg with a baked potato
A cup of chocolate

DINNER

Cream of celery soup
Bran meal gems
A potato
Cocoa or sassafras tea (See recipe, p. 681)

WINTER MENU
FOR THE NORMAL PERSON

From 85 to 100 Years of Age

BREAKFAST

Two very ripe bananas, baked, eaten with nut butter and cream
Sassafras tea or a cup of chocolate

LUNCHEON

Cream of potato soup
Whole wheat crackers

DINNER

Purée of peas or beans
A potato—sweet or white
Chocolate or hot milk

CURATIVE MENUS

INTRODUCTION TO CURATIVE MENUS

Scientific investigation leads one inevitably to the conclusion that a vast number of so-called dis-eases are caused by errors in eating; that is, by wrong selections, wrong combinations and wrong proportions of food. (See chart, Vol. I, p. 9, showing the number of dis-eases caused by superacidity.) This chart will give the reader some idea of the number of disorders that may originate from one source or from one fundamental cause.

While superacidity is a true dis-ease, and may cause all the disorders shown on this chart, yet behind superacidity there is a parent cause, namely, wrong eating. In the light of these facts, it is obvious that a department of curative and remedial menus should constitute an important feature of this work.

For each patient who came under the care of the author (over 23,000 in all), there was prescribed an average of six menus, covering a period of six weeks. Each patient was required to keep an accurate record of his or her diet, and the symptoms that developed after each meal. This record was either brought to the author in person, or sent to him through the mails.

From this vast amount of data and clinical experience, the writer was enabled to select all the menus composing this volume, from those that had proved successful in the various disorders treated. This volume, therefore, is composed of only such menus as gave the desired results. It represents the refined experience of twenty years' active practise in Scientific Feeding.

MENUS FOR SUPERACIDITY

SPRING MENU

ABNORMAL APPETITE
SUPERACIDITY

Abnormal appetite is caused by the surplus acid which is left in the stomach after digestion has taken place. This surplus acid causes irritation of the mucous membrane of both the stomach and the pylorus. The supersecretion of acid, in turn, is caused by overeating, by taking foods in combination which are chemically inharmonious, by sedative and intoxicating beverages, by tobacco, and by all stimulating drugs. The logical remedy, therefore, is to omit the use of these things, and to regulate the diet according to age, occupation, and chemistry, and to drink copiously of water both at meals and between meals.

BREAKFAST

Plain or flaked wheat, boiled very thoroughly; serve with butter, cream, and nuts
A baked or broiled banana

LUNCHEON

Purée of pea soup, made from the pod
Baked potatoes
One egg, boiled two minutes, or lightly shirred

DINNER

Spinach or dandelion, cooked
Boiled onions, peas, asparagus—any two of these
A very small portion of tender fish (optional)
A baked potato
Gelatin or junket

NOTE: For all cases of superacidity, see "Importance of Water-drinking," Vol. II, p. 434.

SUMMER MENU

ABNORMAL APPETITE
SUPERACIDITY

BREAKFAST

A melon or extremely ripe peaches; melon preferred

Two or three eggs, whipped; flavor with sugar and fruit-juice, and add half a glass of milk to each egg

LUNCHEON

A liberal portion of tender corn, with butter
Half a glass of milk

DINNER

A green salad with grated nuts
Any two fresh vegetables
A very small portion of fish
A small, baked potato
Cantaloup

Drink one or two glasses of water at each meal.

FALL MENU

ABNORMAL APPETITE
SUPERACIDITY

BREAKFAST

Cantaloup, or very ripe tomatoes with a sprinkle of sugar and a spoonful of cream
A morsel of smoked fish
A baked potato or a bran meal gem

LUNCHEON

A green salad
Turnips, Brussels sprouts, onions, green corn, lima beans—any two of these
A wheat muffin or a slice of corn bread

DINNER

Slaw or celery
Any vegetable from the luncheon selection
Baked beans or a baked potato
Junket or gelatin

The noon meal should be omitted if the breakfast is late.

WINTER MENU

ABNORMAL APPETITE
SUPERACIDITY

BREAKFAST

Three egg whites and one yolk whipped, eaten with baked bananas and thin cream
Bran meal gems
Salted almonds

LUNCHEON

Boiled Spanish onions
A baked potato

DINNER

Cream of pea soup or corn soup
Celery or slaw
Carrots or parsnips
Spinach, with egg
Baked dried beans or a sweet potato

Drink an abundance of cool water at each meal.

If the patient is suffering, or recovering from a severe attack of stomach irritation, the quantity of solid food should be reduced, and the quantity of water increased.

SPRING MENU

SOUR STOMACH (SUPERACIDITY)
IRRITATION OF STOMACH AND INTESTINES

On rising, drink two glasses of cool water. Devote from three to five minutes to vigorous, deep breathing exercises.

BREAKFAST

Whole wheat or a corn-meal gem
Two eggs very lightly cooked
Half a cup of wheat bran, cooked and served as a porridge, with butter and salt
Half a glass of water

LUNCHEON

Tender asparagus, peas, or beans
New potatoes
A small portion of wheat bran
A glass of water

DINNER

New peas or asparagus
New potatoes, baked
Whole wheat, boiled; serve with butter
A glass of water

At least two glasses of water should be drunk between breakfast and luncheon, and between luncheon and dinner.

The quantity of food may be slightly increased as the patient improves, and the meals may be varied by changing the vegetables current in the market. The general combinations and the proportions, however, should be observed for two or three weeks.

SUMMER MENU

SOUR STOMACH (SUPERACIDITY)
IRRITATION OF STOMACH AND INTESTINES

Immediately on rising, drink two glasses of water.

BREAKFAST

Cantaloup, or very ripe peach—neither sugar nor cream
Tender corn, scraped from the cob; cook slightly with a whipped egg and butter, stirring constantly
A glass or two of water
(Mastication should be very thorough)

LUNCHEON

String beans and either young carrots or onions
A baked potato
One egg, prepared choice

DINNER

Fish—very tender
A baked potato
A green salad with nuts
An ear of tender corn
A glass or two of water

Just before retiring, drink two glasses of water.

FALL MENU

SOUR STOMACH (SUPERACIDITY)
IRRITATION OF STOMACH AND INTESTINES

Observe the instructions in regard to water-drinking and deep breathing, which were given in connection with the spring menu.

BREAKFAST

Cantaloup, peaches, or persimmons
A glass of clabbered milk
One whipped egg
A small portion of steamed or boiled whole wheat
A tablespoonful of clean, wheat bran

LUNCHEON

Choice of the following—

a Two or three exceedingly ripe bananas (red variety preferred), eaten with cream, two figs, and either nuts or nut butter

b A baked sweet potato

DINNER

Lettuce, endive, or romaine salad, with dressing or olive-oil and whipped egg
Tender corn or string beans
A baked potato
A baked banana

From one to three glasses of water should be drunk at each of these meals—half a glass at the beginning; a glass during the progress of the meal, and a glass at the close.

WINTER MENU

SOUR STOMACH (SUPERACIDITY)
IRRITATION OF STOMACH AND INTESTINES

On rising, drink two or three glasses of water, and take vigorous exercise and deep breathing.

BREAKFAST

Two heaping tablespoonfuls of plain wheat, thoroughly cooked, or simmered over night; eat with butter and nuts

One or two eggs, either whipped or cooked two minutes

The entire meal may consist of boiled wheat and butter, with a very little cream, unless the weather is exceedingly cold, in which event the wheat may be reduced in quantity, and two, or even three, whipped eggs taken.

LUNCHEON

A liberal portion of baked sweet potato

Stewed pumpkin or winter squash, with either butter or olive-oil

A cup of chocolate

DINNER

Carrots, parsnips, turnips, beets, onions—any two of these
A small portion of tender fish or fowl; or, an egg preferred
A baked potato
Celery, or slaw, with nuts

Avoid overeating. Stomach fermentation is caused largely by taking into the stomach a quantity of food in excess of digestive ability or of bodily requirements. The logical remedy, therefore, is to limit the quantity of food, or to increase the amount of physical exercise.

SPRING MENU

SOUR STOMACH—INTESTINAL GAS
CONSTIPATION

On rising, drink a glass or two of water, eat a spoonful of cherries or berries, and devote a few minutes to vigorous exercise.

BREAKFAST

Half a cup of wheat bran
One or two red bananas—very ripe; baked if preferred. Served with either a spoonful of nuts or nut butter
Raisins and cream

LUNCHEON

Two tablespoonfuls of wheat bran
Two eggs—preferably whipped
Lettuce, with young carrots and grated nuts
Boiled onions
A baked potato

DINNER

Wheat bran
Choice of the following vegetables, baked in casserole dish: peas, asparagus, or onions
Spinach, with egg
A few spoonfuls of plain boiled wheat
A baked potato

Drink two glasses of cool water at each of these meals.

Just before retiring, take a small portion of wheat bran, and spend at least ten minutes in vigorous exercise.

SUMMER MENU

SOUR STOMACH—INTESTINAL GAS
CONSTIPATION

Drink copiously of cool water, and take a brisk walk or vigorous exercise and deep breathing before breakfast.

BREAKFAST

Cantaloup or peaches—no cream
Half a cup of wheat bran, cooked
Whipped egg—a dash of sugar
A baked banana—very ripe
One or two glasses of water

LUNCHEON

A green salad
An ear or two of tender corn, masticated very thoroughly
Nuts
Wheat bran
A glass or two of water

DINNER

A green salad
Choice of two fresh vegetables—peas, corn, beans, okra, eggplant

A potato
Cream cheese with nuts and raisins
A small portion of bran, cooked
Water

Cool water should be drunk freely at meals, and mastication should be thorough.

FALL MENU

SOUR STOMACH—INTESTINAL GAS
CONSTIPATION

First Day: On rising, drink two glasses of water, and devote three or four minutes to Exercises 3 and 5. (See Vol. V, pp. 1344 and 1345.) Inflate the lungs every fourth or fifth movement to their extreme capacity.

BREAKFAST

Steamed or boiled whole wheat

A tablespoonful or two of coarse wheat bran (This may be cooked, and served the same as any ordinary cereal, and eaten with butter and salt)

One or two exceedingly ripe bananas (baked if preferred), eaten with cream and nut butter

One egg whipped very briskly, to which add a teaspoonful each of sugar and of lemon juice while whipping

LUNCHEON

Four glasses of milk, drinking half a glass every six or eight minutes

DINNER

Choice of two of the following vegetables: Carrots, parsnips, squash, beets, tender cabbage

A baked potato or whole wheat bread
A green salad or celery
One egg, whipped (The egg could be omitted, and the combination of foods would still be well balanced)
Wheat bran

Just before retiring, take a spoonful of wheat bran in half a glass of water. Exercise as prescribed for the morning.

SECOND DAY: The same as the first, increasing the quantity of food, if hungry. The noon meal could consist of two eggs, prepared as prescribed, and one fresh vegetable, uncooked, such as carrots or turnips, eaten with a green salad and either nuts or olive-oil. A banana, with very thin cream, might also be taken.

THIRD DAY: Practically the same as the second, varying the breakfast by omitting eggs, allowing it to consist of bananas, soaked prunes and cream; or, oatmeal in small quantity, with thin cream; or, if agreeable, let it consist of the same articles as prescribed for the first day.

FOURTH DAY:

BREAKFAST

A cup of hot water
Bran meal gems, with butter
Bananas, with soaked prunes, and either nuts or nut butter (Bananas should be baked unless very ripe)

LUNCHEON

Two egg whites and one yolk rolled with whipped cream into a very rare omelet
A small, baked potato

DINNER

Anything in the way of a salad—celery, lettuce, cabbage
String beans, parsnips, pumpkin, squash, onions, or carrots
One egg whipped or cooked two minutes
A baked potato or baked beans

Just before retiring, take a heaping tablespoonful of wheat bran and the exercises which were prescribed for the first day.

FIFTH DAY: Same as the fourth.

SIXTH DAY: Same as the first, repeating the diet, day by day, for twelve or fifteen days.

WINTER MENU

SOUR STOMACH—INTESTINAL GAS
CONSTIPATION

Immediately on rising, take a cup of hot water, into which put two tablespoonfuls of wheat bran. Devote from three to five minutes to deep breathing exercises.

BREAKFAST

Half a cup of wheat bran cooked from twenty to thirty minutes; eat with cream and a very little salt

One or two very ripe bananas, with cream and nuts

Whole wheat, thoroughly cooked

LUNCHEON

Boiled onions, carrots, or squash—any one or two of these

A bit of green salad or celery

A baked white potato—eat skins and all

A tablespoonful of wheat bran, either cooked or uncooked

DINNER

A bit of slaw or celery

Spinach, carrots, parsnips, beets, turnips, pumpkin, or squash—any one or two of these

Baked beans or baked sweet or white potatoes
A small portion of fish or chicken (If this is not convenient, an egg, lightly cooked, may be eaten)

If something sweet is desired, a small portion of plain ice-cream or gelatin may be eaten once a week.

From one to two glasses of water should be drunk at each of these meals.

If it is cold, and something hot is desired, a cup of sassafras tea, made from the bark of the red sassafras root, may be taken at the morning and the evening meal. (See p. 681.)

Just before retiring, devote three or four minutes to deep breathing exercises.

At the beginning of the evening meal, or on retiring, two or three tablespoonfuls of bran may be taken in a little hot water. The quantity of bran may be reduced according to the condition of the bowels.

SPRING MENU

STOMACH AND INTESTINAL CATARRH

Catarrh of the stomach is merely a form of chronic irritation caused by a residue of hydrochloric acid in the stomach following the process of digestion. This condition is augmented by intoxicating and stimulating beverages—tobacco, liquor, beer, tea, coffee; by acids, such as vinegar, lemon, grapefruit, and pineapple juices; by cane-sugar, cereal starches, and meat. The remedy, therefore, is found in eliminating these things, and in confining the diet to the following foods:

All fresh vegetables	Milk
Eggs	Nuts
Green salads	Subacid fruits
Melon	Very tender fish or white meat of fowl—occasionally

Inasmuch as the primary cause of stomach catarrh is supersecretion of hydrochloric acid, an abundance of pure water should be drunk at meals and also between meals.

BREAKFAST

A cup of hot water
Egg whites, whipped, mixed with lukewarm milk; drink slowly

Drink a cup of hot water about 11 a. m.

LUNCHEON

A cup of hot water
A green salad or one fresh vegetable
A new potato, baked; serve with butter
Rice, simmered over night; serve with rich milk
Half a cup of water at close of meal

Drink a cup of hot water about 4 p. m.

DINNER

A cup of hot water
Two fresh vegetables
A new potato, baked
Bran gems, with butter
An egg, or a very small portion of either tender fish or chicken

Mastication must be perfect.

Bread, flour, and cereal products should be omitted, with the exception of a very

limited quantity of thoroughly cooked rice and wheat bran.

Sweets, desserts, tea, coffee, all sedative and stimulating beverages, and drugs and narcotics should be omitted.

Water should be drunk copiously both at meals and between meals.

SUMMER MENU

STOMACH AND INTESTINAL CATARRH

BREAKFAST

A bit of subacid or non-acid fruit—pear, peaches, plums, or melon

Whipped eggs, using an excess of whites

An extremely ripe banana, baked, eaten with very little thin cream

LUNCHEON

A green salad with nuts

Tender corn or string beans

A baked sweet or a white potato

DINNER

A salad with grated nuts—no dressing

One or two fresh vegetables—corn, peas, beans, carrots

A baked white potato

A whipped egg, or fish, if engaged in manual labor

A very ripe peach or a melon

FALL MENU

STOMACH AND INTESTINAL CATARRH

BREAKFAST

A melon or a very ripe peach
Two or three glasses of fresh milk, taken slowly
Half a cup of wheat bran, cooked

LUNCHEON

A very small portion of green salad, with grated nuts
Tender corn, lima beans, or lentils

DINNER

A green salad, with grated nuts
Stewed pumpkin or squash
Corn, carrots, or parsnips
A baked potato or baked beans

WINTER MENU

STOMACH AND INTESTINAL CATARRH

BREAKFAST

A pint of junket
One whipped egg

LUNCHEON

Vegetable soup
Boiled onions, carrots, or turnips
An egg or a small portion of tender fish
A baked potato

DINNER

Choice of the following cooked in a *casserole dish:

a Cauliflower, cabbage, or Brussels sprouts

b Carrots, parsnips, or turnips

A baked potato

A vegetable salad with ripe olives and nuts

*For cooking en casserole, see p. 671.

MENUS FOR FERMENTATION

SPRING MENU

FERMENTATION—INTESTINAL GAS
FEVERED STOMACH AND LIPS
CANKERS ON TONGUE

BREAKFAST

A glass of cool water
Three or four egg whites and one yolk, whipped; sweeten slightly; add half a glass of milk
Gelatin, without fruit, or two extremely ripe bananas baked in a casserole dish

LUNCHEON

Carrots, parsnips, or turnips
Peas or asparagus
A white potato, either baked or boiled

DINNER

Cream of asparagus soup, made rather thin
Peas in the pod (See recipe, p. 679)
A new, white potato, baked; serve with very little butter
One egg, whipped
A glass or two of cool water

An abundance of cool water should be drunk between meals, and from one to two glasses at meals.

Fevered stomach is caused by fermentation of food—hyperacidity. After the diet is balanced so as to be chemically harmonious, the next most important thing is copious water-drinking at meals and between meals.

See Vol. II, p. 434.

SUMMER MENU

FERMENTATION—INTESTINAL GAS
FEVERED STOMACH AND LIPS
CANKERS ON TONGUE

Immediately on rising, drink a glass or two of water. Also take vigorous exercise and deep breathing.

BREAKFAST

Cantaloup, or watermelon, eliminating the pulp
Half a pint of junket or gelatin
A baked banana or bran meal gems

LUNCHEON

A liberal portion of fresh green corn, boiled or steamed in the husk; eat with a very little butter

DINNER

Two fresh green vegetables
Choice of fish or an egg
A baked potato

From one to two glasses of water should be drunk at each of these meals, eliminating all sweets and acids.

If there is a tendency toward constipation, half a cup of wheat bran, cooked, and served as an ordinary cereal, should be taken at the morning and the evening meal.

FALL MENU

FERMENTATION—INTESTINAL GAS
FEVERED STOMACH AND LIPS
CANKERS ON TONGUE

Immediately on rising, drink a cup of cool water, and take vigorous exercise and deep breathing.

BREAKFAST

A bunch of California grapes
One egg—coddled (See recipe, p. 677)
Choice of very ripe bananas, baked—served with butter and thin cream, or a corn-meal muffin
A cup of hot water into which put a little sugar or cream

LUNCHEON

Two or three eggs whipped very thoroughly, to which slowly add a teaspoonful each of lemon juice and of sugar while whipping. Add half a glass of milk to each egg

EMERGENCY LUNCHEON

A scrambled egg or a morsel of fish, eaten with a baked potato
A boiled onion
A cup of water

DINNER

Choice of carrots, parsnips, squash, or string beans, seasoned with a little butter
A baked potato or green corn
A cup of milk

EMERGENCY DINNER

Two baked potatoes
A boiled onion
A glass of milk, and an egg, if desired

If one is engaged in heavy manual labor, the food may be increased beyond the amount herein prescribed. The combination, however, should be observed.

The emergency luncheon is to be taken if one does not like the regular luncheon. The same rule should be observed with the emergency dinner. The regular luncheon contains considerable protein, which is very necessary in these conditions. The emergency dinner contains the same in another form. The one may be chosen which appeals most to natural hunger.

Now and then the breakfast may consist of one or two extremely ripe bananas, eaten with nut butter and cream, and one or two whipped eggs.

WINTER MENU

FERMENTATION—INTESTINAL GAS
FEVERED STOMACH AND LIPS
CANKERS ON TONGUE

BREAKFAST

A small bunch of grapes
Two egg whites and one yolk, whipped very fine, into which whip a teaspoonful of sugar. Whip until stiff and smooth
One or two exceedingly ripe bananas, baked, eaten with cream
A cup of hot water with a little sugar and cream

LUNCHEON

A baked potato or a bran meal gem
A boiled onion or baked squash

DINNER

Vegetable soup
One fresh vegetable such as carrots, parsnips, squash, or turnips
A baked potato—eat skins and all
A cup of chocolate, or a whole wheat cracker

If the tongue should become coated, or the mouth sore, the amount of food

prescribed for the evening meal should be reduced until digestion is perfect, which can be aided largely by drinking copiously of water.

If the bowels should become slightly constipated, take two heaping tablespoonfuls of wheat bran in a cup of hot water just before retiring. It is not necessary to masticate the bran. Devote two or three minutes to deep breathing exercises, Nos. 1 and 5, as shown in Vol. V, pp. 1343 and 1345.

The eggs can be taken uncooked, without whipping, if preferred.

MENUS FOR CONSTIPATION

SPRING MENU

CONSTIPATION (CHRONIC)
NERVOUSNESS

First Day: Immediately on rising, take half a cup of wheat bran, in hot water, and eat a tablespoonful of soaked evaporated apricots.

Devote five minutes to exercises Nos. 3 and 5. (See Vol. V, pp. 1344 and 1345.) These should be taken vigorously, before an open window, and before dressing. Then take a cool shower bath and a vigorous rub down.

If possible, take half an hour's walk before breakfast.

BREAKFAST

Half a cup of coarse wheat bran, cooked ten minutes; eat with thin cream
Two bran meal gems
Two large, very ripe bananas, with thin cream and either nuts or nut butter
(The bananas may be baked if preferred)
Two glasses of water

Devote two or three minutes to exercises 3 and 5, about ten o'clock, if possible.

LUNCHEON

A dozen soaked prunes and one very ripe banana

Two tablespoonfuls of nuts, or a rounded tablespoonful of nut butter

(The prunes, the banana, and either the nuts or nut butter may be eaten together)

One egg, whipped, or cooked two minutes

(If whipped, add sugar and lemon juice)

Peas or asparagus

Half a cup of coarse wheat bran

Drink two glasses of water during the progress of the meal.

DINNER

A salad of lettuce, asparagus, peas or carrots; or anything green, eaten with either nuts or nut butter

One egg, coddled; serve with butter and salt

A baked potato or a whole wheat muffin

A cup of wheat bran, slightly cooked if desired, and eaten with thin cream

Two glasses of water

Just before retiring, take half a cup of wheat bran.

SECOND DAY: The same as the first, slightly increasing the quantity of food if there is a tendency toward weakness or unusual fatigue.

THIRD DAY: The same as the second, varying the meals by changing the vegetables.

FOURTH DAY: On rising, eat a cup of soaked apricots, and take the exercises which were prescribed for the first day.

BREAKFAST

A cup of wheat bran, with cream
A cup of hot water
The juice of one sweet orange
A small portion of plain wheat, boiled (simmered over night)
One egg, coddled

LUNCHEON

A dozen soaked prunes
Two extremely ripe bananas, with two tablespoonfuls of nuts
Three or four figs, and cream cheese—fresh
Two glasses of water

DINNER

A cup of hot water
A cup of wheat bran
Two large, boiled Spanish onions
One other vegetable
A baked potato
One glass of cool water

Just before retiring, eat a few soaked evaporated apricots, or half a cup of bran.

NOTE: The apricots should be omitted if there is a tendency toward sour stomach (premature fermentation), or rheumatism.

FIFTH DAY: The same as the fourth.

SIXTH DAY: The same as the first.

Repeat this diet until the bowels become normal. The bran and the apricots may then be reduced according to the condition of the bowels, and the quantity of vegetables, eggs, and other solids increased sufficiently to meet the demands of normal hunger.

SUMMER MENU

CONSTIPATION (CHRONIC)
NERVOUSNESS

Immediately on rising, eat two or three very ripe peaches or plums, and drink a glass or two of water. Devote from five to ten minutes to vigorous exercise and deep breathing, especially exercise No. 3. (See Vol. V, p. 1344.)

BREAKFAST

A dish of sliced peaches—very ripe; a little sugar, but no cream

Half a cup of wheat bran, with a spoonful or two of crushed wheat, thoroughly cooked (simmered over night)

An ear of tender corn—prepared choice

LUNCHEON

A liberal portion of tender corn

A lettuce and tomato salad, eaten with grated nuts

DINNER

A liberal green salad, with grated nuts

A baked sweet potato

Fresh peas, beans, Brussels sprouts, cabbage, corn—any two of these

A portion of wheat bran, cooked

If the above menus do not seem sufficient to sustain the body while performing manual labor, one or two whipped eggs may be added.

Just before retiring, eat three or four ripe peaches, or a large bunch of blue grapes, swallowing seeds without mastication. Take exercises as prescribed for morning.

From two to three glasses of water should be drunk at each of these meals.

FALL MENU

CONSTIPATION (CHRONIC)
NERVOUSNESS

(For general instructions see Spring Menu.)

Just after rising, eat a bunch of grapes.

BREAKFAST

Cantaloup or melon
Wheat bran and a small portion of whole wheat
Two or three baked bananas, eaten with raisins and nuts

LUNCHEON

Celery or slaw
One fresh vegetable
An ear of tender corn or a baked potato
Wheat bran

DINNER

Lettuce and tomato salad
Okra, eggplant, cauliflower, carrots, squash, cabbage, string beans—any two of these
Chicken or fish—very limited portion
A cantaloup or a baked banana

From two to three glasses of water should be drunk at each of the above meals, and mastication should be very thorough.

WINTER MENU

CONSTIPATION (CHRONIC)
NERVOUSNESS

Immediately on rising, take the juice of a sweet orange.

For general instructions see Spring Menu.

BREAKFAST

Two extremely ripe bananas, eaten with nuts or nut butter

(The bananas may be baked if preferred)

A liberal portion of whole wheat, boiled until very soft—simmered over night; serve with either butter or cream

LUNCHEON

Spinach, with an egg
Endive, kale, or cabbage
Peas, beans, lentils, or corn

DINNER

Celery, with nuts

Carrots, parsnips, beets, onions, stewed pumpkin, or squash

A small rare omelet, or a very small portion of fish; omelet preferred
A potato

A glass of pure apple cider may be drunk just after rising, and just before retiring.

From two to three glasses of water should be drunk at each of the above meals.

SPRING MENU

CONSTIPATION—AUTOINTOXICATION
LOW VITALITY

Choice of the following menus:

MENU I

BREAKFAST

Half a cup of wheat bran, cooked
The juice of a sweet Florida orange (Russet seedling)
One glass of water
One whole egg, whipped with teaspoonful of sugar
One or two extremely ripe bananas, with nuts and cream

LUNCHEON

Peas or asparagus
A baked potato
A cup of hot water

MENU II

BREAKFAST

Two glasses of water
Wheat bran, cooked
Boiled whole wheat, with cream
Two tablespoonfuls of nuts or one tablespoonful of nut butter
One very ripe banana, with nuts and raisins

LUNCHEON

A boiled onion
Whole wheat or a bran meal gem
A cup of hot water

DINNER

Green peas
Spanish onions
A small, baked white potato (Eat skins and all)
Two eggs, lightly poached
Nuts and raisins, if something sweet is desired
A small portion of fish or of white meat of chicken
One very small, baked white potato
A salad of lettuce or anything green, with oil
A baked banana

A spoonful or two of coarse wheat bran should be taken both at breakfast and at dinner; also, just before retiring, a glass of water and a few pieces of soaked evaporated apricots.

(The apricots should be omitted if there is a tendency toward either fermentation or rheumatism.)

SUMMER MENU

CONSTIPATION—AUTOINTOXICATION
LOW VITALITY

Choice of the following menus:

MENU I

BREAKFAST

Fresh fruit—grapes preferred
A baked sweet potato
Two very ripe bananas, with figs and cream
Wheat bran

LUNCHEON

Melon
One fresh vegetable
A bran gem with either butter or nut butter
Two tablespoonfuls of nuts (choice)
One glass of water

MENU II

BREAKFAST

Wheat bran
Melon or peaches
Very ripe bananas with cream, nuts and raisins
One glass of water
One whipped egg

LUNCHEON

One or two fresh vegetables (choice)
A baked potato or corn
A green salad
Bran, or a bran gem

DINNER

A fruit salad made of bananas, raisins, and grated nuts; serve with whipped cream
Two tablespoonfuls of nuts (choice)
Cream cheese and one fig
Boiled wheat, with sweet butter
Two glasses of water
A melon

Practically the same as for luncheon, with choice of junket or gelatin

SUPPLEMENTARY MENU

Corn
Spinach
Two egg whites—poached or whipped
A potato
A salad
Water and wheat bran

If there is a craving for something sweet, let the evening meal consist entirely of ice-cream and three or four glasses of water. All sweets may be omitted, however, if they do not especially appeal to the taste.

Take vigorous exercise and deep breathing just after rising, and just before retiring.

FALL MENU

CONSTIPATION—AUTOINTOXICATION
LOW VITALITY

Just after rising, eat a large bunch of grapes and drink a glass of water.

Choice of the following menus:

MENU I

BREAKFAST

Peaches, plums, or melon
Whole wheat, or barley, boiled until soft; serve with butter and cream
Wheat bran cooked, eaten with thin cream
Water

LUNCHEON

A bowl of clabbered milk, eaten with a very little sugar
One whipped egg
Half a cup of wheat bran
A baked white potato (Eat skins and all)
One fresh vegetable
A morsel of fish

MENU II

BREAKFAST

Two or three exceedingly ripe bananas, eaten with nut butter and cream; also raisins, if something sweet is desired
(Bananas may be baked if preferred)

LUNCHEON

DINNER

Spinach, cooked	Same as dinner (Menu I) with the addition of buttermilk or a morsel of fish
One egg white	
Baked beans	
One fresh vegetable	
	(Some simple dessert may be taken with this meal, if desired)

Just before retiring, take wheat bran or eat a large bunch of grapes.

WINTER MENU

CONSTIPATION—AUTOINTOXICATION
LOW VITALITY

BREAKFAST

A small portion of plain wheat boiled until soft, or until the grains burst open; serve with cream and salt

A cup of wheat bran, cooked, eaten with butter and salt

Two egg whites and one yolk

One exceedingly ripe banana—must be very ripe; eat with one fig, cream, and a spoonful of either nuts or nut butter

A cup of hot barley water

LUNCHEON

A spoonful of wheat bran

A portion of boiled onions

A baked white potato—skins and all—with butter and salt

A cup of hot barley water

DINNER

A salad of anything green

Choice of carrots, turnips, eggplant, parsnips, or squash, cooked in casserole dish—no cream

A baked white potato

A morsel of fish or chicken, or an egg, cooked two minutes, eaten with butter

(One of the fresh vegetables should be made very hot with red pepper, or a small capsule of red pepper may be taken at the close of the meal)

From one to two glasses of water should be drunk at each of these meals.

Either grapes or wheat bran should be taken just before retiring. The wheat bran may be taken uncooked in hot water.

If constipation is not relieved after taking the quantity of bran prescribed, increase the quantity until the desired results are obtained, then gradually decrease the quantity, taking it only at the morning and the evening meal.

MENUS FOR GASTRITIS

SPRING MENU

GASTRITIS

In severe cases of gastritis, all food, and even water should be omitted. As the patient begins to recover, water, cool or hot, may be taken, and after a time, when normal hunger appears, the following suggestions in diet should be observed:

BREAKFAST

Choice of the following—

a One large, very ripe banana, baked; preferably en casserole

b A baked white potato, with butter

LUNCHEON

Onions, or fresh tender peas, thoroughly cooked, en casserole

A baked potato

DINNER

Peas, asparagus, or onions

A baked potato or rice (If rice is chosen, a tablespoonful of clean wheat bran should be eaten)

As the patient recovers, the articles composing the meals may be increased, confining entirely to such foods as peas, asparagus, potatoes, carrots, parsnips, beets, spinach, and the green salad vegetables.

SUMMER MENU

GASTRITIS

In regard to the omission of food in severe cases, see Spring Menu.

BREAKFAST

Cantaloup or melon, discarding the pulp of the melon

Two or three egg whites, lightly whipped with a sprinkle of sugar

LUNCHEON

Tender peas, string beans, green corn, or young carrots, thoroughly cooked

Bran meal gems

DINNER

Carrots, parsnips, squash, spinach, or turnip-tops

Graham gems or a baked potato

FALL MENU

GASTRITIS

BREAKFAST

A cantaloup or very ripe peaches—no cream
Baked chestnuts, or boiled rice, with butter
A tablespoonful of wheat bran in hot water

LUNCHEON

Eggplant, okra, or a Spanish onion
Tender corn or a potato

DINNER

Celery or lettuce
Nuts and ripe olives
Green corn or a baked potato
Carrots or winter squash

WINTER MENU

GASTRITIS

BREAKFAST

A baked banana
A spoonful or two of plain wheat, boiled
A cup of hot water

LUNCHEON

Winter squash, or onion, en casserole
A baked potato
Celery hearts

DINNER

A light vegetable soup—no crackers
Celery
Carrots or parsnips
A potato

For instructions in cooking "en casserole," see p. 671.

MENUS FOR NERVOUS INDIGESTION

SPRING MENU

NERVOUS INDIGESTION

Nervous indigestion is a condition in which the mucous membrane of the stomach is in a chronic state of irritation caused by acid fermentation.

The appetite is usually keen; sometimes ravenous. This, however, is the best evidence that the diet should be limited to just enough food to sustain strength when no manual labor is performed.

BREAKFAST

A pint of clabbered milk with a light sprinkle of sugar, if desired

Two tablespoonfuls of clean wheat bran, well cooked; serve with cream

LUNCHEON

Onions, en casserole, or fresh peas
Bran meal gems or graham muffins
A baked potato
A glass of water

DINNER

Peas, asparagus, onions—any two of these
A potato and bran meal gems
A glass of buttermilk
A spoonful or two of bran prepared as for breakfast

SUMMER MENU

NERVOUS INDIGESTION

BREAKFAST

Cantaloup or baked bananas
Two or three egg whites, lightly poached
One or two bran meal gems
A glass of milk

LUNCHEON

Peas, string beans, carrots, okra—any two of these
Tender corn or a baked potato
Spinach, with egg
A spoonful or two of wheat bran

DINNER

Young carrots, string beans, or squash
Tender corn, lima beans or a baked potato
Gelatin, if something sweet is desired; a very small portion, and very little sugar

FALL MENU

NERVOUS INDIGESTION

BREAKFAST

Persimmons, cantaloup, or a baked banana
A baked potato
Half a glass of milk
A spoonful of wheat bran

LUNCHEON

Two and one-half to three glasses of fresh milk
Two tablespoonfuls of wheat bran

DINNER

Eggplant, okra, Brussels sprouts, tender spinach, string beans, carrots, or onions—one or two of these
A baked potato or rice

NOTE: From one to three glasses of cool water should be drunk at each of these meals.

WINTER MENU

NERVOUS INDIGESTION

BREAKFAST

Very ripe bananas with cream
Two bran meal gems with butter, or two tablespoonfuls of plain boiled wheat

LUNCHEON

Vegetable soup—omit crackers
Cauliflower, boiled onions, or carrots
A baked potato

DINNER

Soup—cream of corn or of rice
Celery, ripe olives, and nuts
Carrots, parsnips, beets, turnips—choice of two of these
Bran meal gems or a baked potato
A spoonful or two of wheat bran (A glass or two of water should be drunk at this meal)

NOTE: Acids, sweets, white bread, oatmeal, corn hominy, and the cereal foods from which the bran has been removed,

should be entirely omitted in all cases of stomach irritation, of which nervous indigestion is merely an expression. The use of tea, coffee, tobacco, all stimulating and intoxicating drinks should also be discontinued.

MENUS FOR NERVOUSNESS

SPRING MENU
FOR BUSINESS MAN

THIN—NERVOUS—IRRITABLE
INSOMNIA—STOMACH AND INTESTINAL TROUBLE

Menu No. 1 is for use at home where one can get all the staple vegetables prepared as directed.

Menu No. 2 consists of emergency meals to be taken when away from home.

They practically contain the same nutritive elements, however, but in slightly different proportions.

MENU I	MENU II
BREAKFAST	
A dish of whole wheat or flaked wheat, thoroughly cooked	A cup of hot water
Two tablespoonfuls of nuts	Bran meal gems
One egg, coddled	Corn muffins
A cup of hot water	A potato eaten with either butter or cream

LUNCHEON

One or two fresh vegetables
A baked sweet or a white potato
A salad, if desired
One or two spoonfuls of nuts
A glass of water
Two glasses of milk (One whipped egg mixed with the milk)
A potato or one fresh vegetable

DINNER

A green salad—either lettuce and tomatoes, or endive
Gems made from corn meal or bran meal, eaten with butter and nuts
Choice of peas, beans, or asparagus
Dessert—gelatin or home-made ice-cream
Vegetable soup
One fresh vegetable
An omelet or a very small portion of fish or white meat of chicken; omelet preferred
A baked potato
One extremely ripe banana with cream, nuts, and either figs or raisins

Intestinal gas can be largely controlled by thorough and complete mastication.

If the use of milk should cause slight constipation, the constipation can be relieved by taking a small portion of wheat bran, either cooked or uncooked, at both the morning and the evening meal.

SUMMER MENU
FOR BUSINESS MAN

THIN—NERVOUS—IRRITABLE
INSOMNIA—STOMACH AND INTESTINAL
TROUBLE

Choice of the following menus for a week or ten days:

MENU I	MENU II
BREAKFAST	
Cantaloup or sliced peaches	Melon or peaches
One tablespoonful of steamed whole wheat	Two very ripe bananas with cream, nuts, and raisins
One glass of milk	
Two baked bananas	Two or three glasses of milk
LUNCHEON	
One or two ears of corn—boiled	Baked sweet potatoes, with butter
A few nuts—choice	Two tablespoonfuls of nuts—choice
One whipped egg and one glass of milk, mixed	A green salad
DINNER	
Spinach, lima beans, carrots, squash—any two of these	Cantaloup
	Boiled corn and lima beans
	Lettuce and tomato salad
One egg, coddled	A baked potato
Small piece of corn bread or whole wheat bread	An egg or a small portion of fish
Two glasses of buttermilk	

NOTE: From one and a half to two glasses of water should be drunk at each of these meals.

If constipation occurs, soaked prunes or soaked evaporated apricots may be taken just before retiring. A glassful of water in which the prunes or apricots have been soaked should also be drunk just after rising.

If stomach-acidity or intestinal fermentation should occur, omit all acid fruits and regulate the bowels by the use of wheat bran.

One hour during the day should be devoted to vigorous physical exercise.

FALL MENU

FOR BUSINESS MAN

THIN—NERVOUS—IRRITABLE
INSOMNIA—STOMACH AND INTESTINAL TROUBLE

First Day: Immediately on rising, drink one glass of cool water and eat half a pound of Concord grapes. Eliminate the seeds, but thoroughly masticate and swallow the skins.

Devote from five to six minutes to exercises Nos. 3 and 5. (See Vol. V, pp. 1344 and 1345.) Inflate the lungs to their fullest capacity at every third or fourth breath.

BREAKFAST

A cantaloup
One or two exceedingly ripe bananas, baked; must be very ripe—red variety preferred; serve with thin cream
One cup of hot water

LUNCHEON

A lettuce and tomato salad
An ear of tender corn

DINNER

Choice of boiled corn, string or lima beans
(With the corn, eat a teaspoonful of either nut butter or nuts; masticate to exceeding fineness)
A lettuce and tomato salad, with a simple dressing
One coddled egg

From one and a half to two glasses of water should be drunk at each of the above meals.

Just before retiring, eat a small bunch of Concord grapes and drink half a glass of water.

Devote from five to ten minutes to exercises Nos. 3 and 5, as above directed, giving special attention to deep breathing. Endeavor to inflate the lungs to their fullest capacity every third or fourth breath.

SECOND DAY: The same as the first, slightly increasing the quantity of food if desired. This may be done by more thorough mastication and by devoting more time to exercise.

Third Day:

BREAKFAST

Two or three exceedingly ripe peaches, eaten with grated maple-sugar

Two or three egg whites poached, served on a crisp cracker; or, one whole egg if the appetite will accept it

Half of a cantaloup

A cup of hot water or cocoa

LUNCHEON

Cooked spinach or a green salad

An ear of tender corn

A potato

A glass of water

DINNER

String beans and young onions—cooked

A green salad

A bit of fish or white meat of chicken, with a baked potato

FOURTH DAY:

BREAKFAST

Cantaloup or peaches
One or two extremely ripe bananas, baked, and eaten with cream
One large pulled fig, with cream
One glass of water

LUNCHEON

Cantaloup
One whole egg, coddled
A baked sweet or a white potato

DINNER

Corn, lima beans, or a potato
A cup of hot water

FIFTH DAY: The same as the first.

SIXTH DAY: The same as the second, and so on, day by day, for about twelve days.

LETTER OF ADVICE

ACCOMPANYING ABOVE MENU

Rise at a regular hour every morning. Take a lukewarm sponge bath, following

it by a cool splash and a vigorous rub down, practising deep breathing all the while.

Before dressing, devote from two to three minutes to exercises Nos. 3 and 5. (See Vol. V, pp. 1344 and 1345.) Take these movements calmly.

Do not worry. Masticate all food to infinite fineness. Take plenty of time to eat.

Inflate the lungs to their fullest capacity one hundred times a day. This is of very great importance.

If the quantity of food prescribed is more than the appetite calls for, eliminate any one thing entirely, or reduce the quantity of the whole.

WINTER MENU

FOR BUSINESS MAN

THIN—NERVOUS—IRRITABLE
INSOMNIA—STOMACH AND INTESTINAL TROUBLE

FIRST DAY: Immediately on rising, drink two cups of cool water and devote from five to ten minutes to vigorous exercise.

BREAKFAST

A cup of hot water
A small portion of boiled wheat or rice
One or two eggs, coddled
Cocoa or chocolate

LUNCHEON

Three eggs, whipped; add a glass of milk and a flavor of sugar and fruit-juice

DINNER

Carrots, parsnips, turnips, winter squash—any two of these
A baked potato
A small portion of fish or chicken (white meat); or, one egg prepared choice, eaten with either a baked potato or a bit of whole wheat bread

Just before retiring, repeat the exercises which have been prescribed for the morning, and, if constipated, take two or three tablespoonfuls of wheat bran in hot water.

SECOND DAY: Same as the first, slightly increasing the quantity of food, if hungry.

THIRD DAY: Same as the second, adding one or two whipped eggs for breakfast, and changing vegetables to suit the appetite for luncheon and for dinner. Nearly all vegetables such as beets, carrots, parsnips, and turnips may be substituted for one another.

FOURTH DAY:

BREAKFAST

A cup of hot water
Two eggs lightly poached; or, a very rare omelet rolled in nuts and whipped cream, eaten with a whole wheat muffin
A cup of chocolate
A liberal portion of wheat bran, cooked and served as an ordinary cereal, with butter and cream

LUNCHEON

Three eggs. See recipe, p. 678.

DINNER

Endive, lettuce, or celery
Choice of any two fresh vegetables
A potato or a whole wheat gem

Exercise as prescribed for the first day.

FIFTH DAY: The same as the fourth.

SIXTH DAY: The same as the first, repeating these menus for a period of about three weeks.

For diet and general instructions in regard to nervousness, see menus for "Fermentation" and "Superacidity." See also Lesson XVII, "Nervousness—Its Cause and Cure," Vol. V, p. 1211.

MENUS FOR SUBACIDITY

SPRING MENU

INDIGESTION (CHRONIC)

BREAKFAST

A dish of very ripe berries or apricots
A cup of hot water
A baked white potato, served with a very little butter and salt
One or two egg whites, lightly poached
Half a cup of wheat bran, cooked twenty minutes

LUNCHEON

A cup of hot water
Two or three bananas, baked in casserole dish. (For baked bananas, see recipe, p. 677)

DINNER

A cup of hot water
Purée of peas
A baked white potato, asparagus, or carrots
Half a cup of wheat bran cooked, served as an ordinary cereal

A few tablespoonfuls of pineapple juice should be taken half an hour after each meal.

The above menus may be increased in quantity as the digestion improves, taking special care, however, not to overeat. Fresh vegetables, from the list given below, may be added to the noon and the evening meal, as the season advances, and the patient becomes stronger.

Asparagus	Cauliflower	Parsnips
Beans	Celery	Peas
Brussels sprouts	Kale	Spinach
Cabbage	Lettuce	Squash
Carrots		

SUMMER MENU

INDIGESTION (CHRONIC)

Immediately on rising, drink a cup of water, and devote from five to ten minutes to vigorous exercise, with deep breathing.

BREAKFAST

Melon or peaches
A large red banana, baked, or broiled in butter; eat with soaked prunes
One egg, either coddled or whipped

LUNCHEON

Melon or cantaloup
A liberal portion of gelatin, with thin cream

DINNER

A light vegetable soup
A very small portion of green salad
A very little tender fish or chicken—white meat
Baked potatoes or green corn
Any fresh vegetables
A small portion of wheat bran, cooked

FALL MENU

INDIGESTION (CHRONIC)

Immediately on rising, drink a cup of water, and devote a few minutes to vigorous exercise.

BREAKFAST

A bunch of Tokay or Malaga grapes
One or two eggs, coddled or poached
A baked white potato
A cup of hot water

LUNCHEON

Purée of corn or beans
One or two egg whites, whipped

DINNER

Stewed pumpkin or squash
A baked white potato
One extremely ripe banana (black spotted), eaten with cream

WINTER MENU

INDIGESTION (CHRONIC)

BREAKFAST

A cup of coarse wheat bran

Whole wheat, cooked until the grains burst open; serve with thin cream or rich milk, and either a spoonful of nuts or nut butter (This should be masticated exceedingly fine)

LUNCHEON

One egg whipped very fine, or boiled one and one-half minutes; if whipped, add a sprinkle of sugar; if boiled, eat with a baked potato

A very small vegetable salad—grated carrots, onion, and lettuce leaves

DINNER

Boiled onions, carrots, or parsnips

A baked white potato

Half a glass of milk, mixed with one whipped egg white

Take a spoonful or two of wheat bran and a spoonful of pineapple juice at the close of this meal, either cooked, or in hot water, uncooked.

The above menus are the minimum of food for this condition. The quantity may be increased according to the demands of normal hunger. Hunger, however, should be determined by labor or exercise. Abnormal appetite, caused by supersecretion of acid in the stomach, is very often mistaken for hunger. In such cases, the patient should cease eating before the appetite is satisfied.

INDIGESTION (ACUTE)

In nearly all cases of acute indigestion, food should be omitted. The patient should be given hot water morning, noon, and evening, and, if possible, a stomach tube should be inserted, and the hot water and stomach contents removed. If this cannot be done, the patient should drink copiously of hot water, and vomit as much of it as possible. After the stomach has been cleansed, the lightest possible diet should be used, consisting of the white of egg, a little malted milk—or better still a glass of clabbered milk or koumyss. The high enema should be administered, thus removing the contents of the lower bowels. After the stomach and the bowels have been thoroughly cleansed, if the patient is not able to exercise, artificial manipulation of the abdomen should be

administered for a period of half an hour three times a day. These suggestions may be repeated until the patient is relieved, when the diet for chronic indigestion may be followed in rather modified form, omitting the heavier vegetables, and increasing the lighter foods.

MENUS FOR BILIOUSNESS

SPRING MENU

BILIOUSNESS—HEADACHE
SLUGGISH LIVER

Supersecretion of bile by the liver is termed biliousness. This may be expressed by the presence of bile in the stomach, which usually causes headache, beginning at the base of the brain, and after five or six hours settling over the eyes. This is sometimes associated with nausea or sick headache.

Again, the excess of bile is absorbed into the blood, causing the skin to become yellow and spotted, and sometimes it assumes the appearance of jaundice.

Biliousness is caused by taking an excess of sweets, coffee, liquors, fats, and sometimes starches—cereal, bread, etc. The remedy, therefore, is a very simple one, and largely confined to elimination, vigorous exercise, deep breathing, and copious drinking of water.

The following menus are suggestive. The diet may consist of any group of fresh, natural foods which are in season.

BREAKFAST

Grapefruit, oranges, pineapple, or berries
Eggs, whipped, flavored with fruit-juice, and a bit of sugar
A banana, baked, or eaten uncooked, if very ripe

LUNCHEON

Vegetable soup
One or two fresh vegetables
Spinach or green salad
A small portion of fish
One egg
Junket or gelatin

DINNER

A green salad
Spinach or dandelion
Asparagus, peas, or any fresh vegetable
Baked beans or lentils
A baked potato
Gelatin

Sufficient coarse wheat bran should be taken at each meal to keep the bowels in normal condition.

SUMMER MENU

BILIOUSNESS—HEADACHE
SLUGGISH LIVER

BREAKFAST

Soaked prunes, apricots, or berries
Choice of the following—
a A very ripe banana, with either nuts or nut butter
b A baked sweet potato, with dairy butter
A cup of water

LUNCHEON

Lettuce, celery, or slaw
A baked potato or corn
A cup of junket
Sliced peaches

DINNER

Tender corn, peas, beans, okra, or eggplant
Any green vegetable or a salad
A whipped egg or a glass of buttermilk
A melon or peach ices

FALL MENU

BILIOUSNESS—HEADACHE
SLUGGISH LIVER

BREAKFAST

Grapefruit, oranges, pineapple, peaches, or plums
A very rare omelet
A whole wheat muffin, or a slice of corn bread

LUNCHEON

Green corn or baked beans
Boiled onions or turnips
Carrots or parsnips

DINNER

A salad of anything green, with grated nuts and oil
A baked sweet potato
Any fresh vegetable such as turnips, carrots, beets, squash, or stewed pumpkin
Gelatin
(One-half pound of grapes an hour after eating)

WINTER MENU

BILIOUSNESS—HEADACHE
SLUGGISH LIVER

BREAKFAST

Any acid fruit that appeals to the taste
Two eggs—prepared choice
A very little corn bread or a baked potato; potato preferred
Thin cocoa

LUNCHEON

Two or three bananas, extremely ripe, eaten with nuts, raisins and cream

DINNER

Cream soup, onions, or celery
One fresh vegetable
Baked beans or a baked potato
A baked banana, eaten with a whipped egg

SPRING MENU

HEADACHE—TORPID LIVER

BREAKFAST

Cherries or berries—neither sugar nor cream
Two bananas broiled in butter, or baked, eaten with cream
(They may be eaten uncooked if sufficiently ripe)
A few raisins, with either butter or nuts

LUNCHEON

Boiled onions—a liberal portion
A baked potato

DINNER

Peas or asparagus
A green salad—just a very little
Baked beans or a baked potato; potato preferred

Just before retiring, drink a cup of water and eat a dozen ripe strawberries, without sugar or cream. This should be followed by vigorous exercise and deep breathing.

For recipe for baked bananas, see p. 677.

SUMMER MENU

HEADACHE—TORPID LIVER

BREAKFAST

Melon, peaches, or berries
One or two whipped eggs
A small portion of plain boiled wheat, with very little butter; no cream

LUNCHEON

Spinach or a green salad
Any fresh vegetable
A potato—baked, boiled, or mashed

DINNER

Cantaloup or melon
Okra, eggplant, string beans, spinach, Brussels sprouts, carrots, or turnips
One whipped egg, or a portion of gelatin with cream and fruit

FALL MENU

HEADACHE—TORPID LIVER

First Day: Immediately on rising, take a glass or two of water and a bit of any juicy fruit—grapes preferred. Devote as much time as possible to exercises Nos. 1, 3, and 5. (See Vol. V, pp. 1343, 1344, and 1345, giving preference to No. 3.) Do not exercise until too much fatigued, but rest every twenty or thirty movements.

BREAKFAST

A bunch of grapes—California variety; swallow seeds and pulp whole; masticate and swallow the skins

Half a glass of water

An egg, cooked one and a half minutes; eat with a potato

Whole wheat, boiled

A cup of hot water or chocolate at the close of the meal

LUNCHEON

One or two fresh vegetables; preferably boiled onions, string beans, or carrots

A baked potato

Anything green in the way of a salad—either lettuce, endive or romaine, with oil, lemon juice, and sugar
A cup of hot water

DINNER

A green salad or spinach
Choice of two of the following vegetables—carrots, string beans, boiled onions, squash, or turnips; preferably boiled onions and carrots
A baked potato
Just a bite or two of the proteids, such as egg, fish, or white meat of chicken
A cup of hot water

Just before retiring, take the juice of half an orange, half a glass of water, and devote as much time as possible to exercises prescribed for the morning.

SECOND DAY: Same as the first, slightly varying the meals according to choice of vegetables.

THIRD DAY: Same as the second.

FOURTH DAY: In regard to water-drinking, exercising, and eating a particle of fruit just after rising, see the rules which were given for the first day.

BREAKFAST

A portion of wheat bran, served with thin cream
Coarse cereal, with either nut butter or nuts
A sweet potato, baked, or sliced and broiled in butter

LUNCHEON

A tomato, stuffed with fine vegetables, and baked
One fresh vegetable
A salad or celery
A baked sweet or a white potato
A cup of hot water
(A cup of cool water during the progress of the meal)

DINNER

Celery or a salad—a very small quantity
One fresh vegetable such as boiled onions, carrots, parsnips, or turnips
Choice of one whipped egg, fish, or white meat of chicken
A cup of hot water or cocoa
Half a cup of wheat bran

Just before retiring, eat a small bunch of grapes, drink a glass of water, and take exercise, as prescribed for the first day.

FIFTH DAY: Same as the fourth.

SIXTH DAY: Same as the first.

SEVENTH DAY: Same as the second, continuing for ten or twelve days.

WINTER MENU

HEADACHE—TORPID LIVER

The element protein slightly predominates in these menus, while the fat-producing nutrients are minimized.

Choice of the following:

MENU I	MENU II
BREAKFAST	
A cup of hot water	One egg, whipped with a very little sugar and a spoonful of lemon juice
Half a cup of bran	One banana with very little nut butter and cream, and a few raisins
Baked sweet potatoes	
Cocoa	
LUNCHEON	
A vegetable salad—lettuce, grated carrots and tomatoes, eaten with a dressing of nut butter, reduced to a solution by adding water	A fruit salad—lettuce; seeded grapes, banana, and a piece of an orange, chopped; serve with either whipped cream or nut-butter dressing
A boiled onion	One fresh vegetable, with a whole wheat cracker
A baked sweet or a white potato, or baked beans (Eat sparingly of the latter)	

DINNER

Two fresh vegetables
Fish or an egg; egg preferred
A potato or a whole wheat gem

One fresh vegetable
A baked potato
Two eggs, either boiled two minutes or whipped with just a little lemon juice and sugar

MENUS FOR CIRRHOSIS OF THE LIVER

CIRRHOSIS OF THE LIVER

Cirrhosis is a word derived from the Greek meaning *yellow*. It was originally intended to convey the idea of overgrowth or enlargement of this much-abused organ, but inasmuch as atrophic conditions often show yellow or tawny, there are now two kinds of cirrhosis, namely, atrophic cirrhosis, meaning a shrinkage, and hypertrophic cirrhosis, meaning enlargement of the liver.

Atrophic cirrhosis is caused by alcoholism, often augmented by milder stimulants such as tea and coffee.

Hypertrophic cirrhosis is caused by overeating, especially of meat, sweets, and starchy foods.

The causes of the former should be removed by ceasing the use of tea, coffee, and all alcoholic stimulants, and of the latter by omitting sweets, and limiting the diet in quantity to, or in severe cases below, the actual needs of the body.

The following menus are laid out for the treatment of severe cases. They are designed both as a counteractive and as a remedial measure.

In mild cases, or as the patient recovers, the diet may be increased in quantity, but it should be confined very rigidly to the articles named in the list below, and in the menus which follow.

Foods to be used in the treatment of cirrhosis of the liver:

Proteids	Vegetables	Fruits
Egg whites	Asparagus	Apples
Fish	Beets	Apricots
Fowl—white meat	Beans	Cantaloup
Nuts	Brussels sprouts	Cherries
Sour milk	Cauliflower	Grapes
Carbohydrates	Cabbage	Melons
Bananas	Carrots	Oranges
Corn bread	Celery	Peaches
Flaked rye	Onions	Pears
Wheat bran	Potatoes	Plums
Whole wheat	Spinach	Prunes
Fats	Squash	Raisins
Butter	Turnip-greens	Tomatoes
Nut butter	Turnips	
Nuts		

SPRING MENU

CIRRHOSIS OF THE LIVER

BREAKFAST

Soaked apricots; neither sugar nor cream
Very ripe bananas
Nuts

NOTE: If bananas are not "dead ripe" they should be baked.

LUNCHEON

Peas in the pod
Bran meal gems
Buttermilk

DINNER

Peas or asparagus
Lettuce, spinach, or turnip-greens
Carrots or turnips
A potato

SUMMER MENU

CIRRHOSIS OF THE LIVER

BREAKFAST

Peaches, cherries, apricots, or cantaloup
Three or four egg whites whipped with a spoonful of cream
Flaked rye, well cooked

LUNCHEON

Beans, Brussels sprouts, or cauliflower
Lettuce and tomato
A potato
A glass of buttermilk

DINNER

Vegetable soup—very little fat
Any fresh vegetable in above list
Fish or chicken—very little
A potato or tender corn

FALL MENU

CIRRHOSIS OF THE LIVER

BREAKFAST

Grapes, peaches, or plums
Two baked bananas
Whole wheat

LUNCHEON

Boiled onions
Squash
Lima beans or bran gems

DINNER

Celery or spinach
Any fresh vegetable in above list
A potato or corn bread
Two tablespoonfuls of wheat bran

WINTER MENU

CIRRHOSIS OF THE LIVER

BREAKFAST

A baked banana or a baked apple
A baked potato—eat skins and all

LUNCHEON

Celery soup
Corn bread
Winter squash

DINNER

Parsnips or turnips
A potato or baked beans
Celery, with nuts
Fish or buttermilk

If the breakfast is late, and the labor is light, the noon meal should be omitted.

SPRING MENU

CIRRHOSIS OF THE LIVER

BREAKFAST

Baked apples or very ripe berries without sugar
A very ripe banana with cream
Flaked wheat, thoroughly cooked with one-half bran

LUNCHEON

Peas in the pod—en casserole
A baked potato

DINNER

Peas, asparagus, or onions
A baked potato
Nuts with cream
Cheese with water-cracker

From one to three glasses of water should be drunk at each of these meals. Mastication should be very thorough.

For cooking "en casserole," see p. 671.

SUMMER MENU

CIRRHOSIS OF THE LIVER

BREAKFAST

Cantaloup, peaches, plums, or berries
Two tablespoonfuls of plain boiled wheat
A pint of rich milk; buttermilk preferred

LUNCHEON

Young onions, lettuce, romaine, or any fresh salad with either nuts or oil
Carrots, squash, or tender corn
A baked potato—sweet or white

DINNER

Vegetable soup
A Spanish onion, en casserole
Squash, carrots, parsnips, okra, cauliflower—any two of these
A baked potato
Tender corn or lima beans
Cheese, with nuts and raisins

FALL MENU

CIRRHOSIS OF THE LIVER

BREAKFAST

Cantaloup, peaches, or grapes
One egg, prepared choice
Bran meal gems or a potato
A glass of milk

LUNCHEON

Squash
Okra, or an onion, en casserole
A corn muffin or a baked potato
Celery, or lettuce, with nuts

DINNER

Vegetable or cream soup
Celery, or slaw, with nuts—no vinegar
Winter squash, stewed pumpkin, or a baked sweet potato
Bran meal gems
A morsel of cheese, with either raisins or nuts

WINTER MENU

CIRRHOSIS OF THE LIVER

BREAKFAST

A baked apple or soaked prunes
A pint of milk
Plain boiled wheat or corn hominy. (If hominy is chosen, a heaping tablespoonful of wheat bran should be taken)

LUNCHEON

Two or three glasses o buttermilk
Two tablespoonfuls of wheat bran

DINNER

Cream of tomato soup
Turnips, cabbage, carrots, cauliflower—any two of these
A potato or a bran meal gem
(A small portion of tender fish may be added if much desired)

If there is a tendency toward constipation, two or three tablespoonfuls of wheat bran should be taken, and an abundance of water drunk both at meals and between meals.

MENUS FOR DIARRHEA

SPRING MENU

DIARRHEA

BREAKFAST

Two egg yolks, hard boiled
Zweibach or boiled rice
A glass of lukewarm milk

LUNCHEON

A sweet potato or corn hominy
Two glasses of milk

DINNER

Cream of rice soup
Boiled rice or spaghetti
A glass of hot milk

(If the milk should prove disagreeable, it may be boiled or heated to 200° Fahrenheit.)

SUMMER MENU

DIARRHEA

BREAKFAST

Blackberries, sugar, cream
A sweet potato broiled in butter
One glass of clabbered milk

LUNCHEON

Two egg yolks, hard boiled, eaten with rice and cream

DINNER

Cream of rice soup
A baked sweet potato
A water-cracker with cheese and raisins

FALL MENU

DIARRHEA

BREAKFAST

Cantaloup
Two egg yolks, hard boiled
Toast or zwieback
Baked chestnuts—cream

LUNCHEON

Two glasses of milk
A baked sweet potato

DINNER

Cream of rice soup
A sweet potato or baked beans
Rice or chestnuts
Cheese, with a water-cracker and almonds

WINTER MENU

DIARRHEA

BREAKFAST

Fish balls or two egg yolks, hard boiled
Chestnuts, rice or a potato
Chocolate

LUNCHEON

Two glasses of milk or two cups of chocolate
Corn hominy or rice

DINNER

Soup—cream of rice or of corn
Fish or turkey—white meat, omit cranberry sauce
Chestnuts, rice, or a sweet potato

Omit water at meals.

Mastication should be very thorough. The principle involved in treating diarrhea is to eliminate from the diet all coarse and fibrous foods, and to limit water, watery foods, and fats to the minimum.

SPRING MENU

DIARRHEA—DYSENTERY

FIRST DAY: Immediately on rising, drink a cup of hot water and devote from five to ten minutes to vigorous, deep breathing exercises, giving special preference to Nos. 3 and 5. (See Vol. V, pp. 1344 and 1345.)

BREAKFAST

Two eggs, whipped. See recipe, p. 678
A baked sweet potato, eaten with butter
A cup of chocolate—very little sugar

LUNCHEON

Boiled rice
A glass or two of milk or a cup or two of chocolate

DINNER

Cream of rice soup or boiled rice
Peas or asparagus
Baked beans or a baked sweet potato
Milk or chocolate

NOTE: Omit coffee and tea.

Just before retiring, take vigorous exercise and deep breathing as prescribed for the morning.

Second Day: Same as the first, increasing the quantity of food if weak or faint.

Third Day: Same as the second.

Fourth Day:

BREAKFAST

Hot milk or a cup of malted milk
Sweet potatoes, broiled in very little butter
A large banana, either broiled in butter, or baked
(See recipe, p. 677)

LUNCHEON

A baked sweet potato, boiled rice, or baked beans
(Make the entire meal of either of these, adding a little cream or milk to the rice, if that is chosen)

DINNER

Soup—cream of rice or pea
A very small lettuce salad with oil
Baked beans or lentils
Rice or corn hominy
A cup of junket or a whipped egg prepared as prescribed for the first day

Fifth Day: Same as the fourth, adding a whipped egg to the morning meal, and one or two whipped eggs to the evening meal, if faint or weak, omitting other foods in the same proportion.

Sixth Day: Same as the first, repeating the diet herein given, for a period of from twenty to thirty days, with variations confined to the things prescribed.

If there be no improvement by the third day, the quantity of food should be materially reduced.

SUMMER MENU

DIARRHEA—DYSENTERY

On rising, drink a glass or two of cool water.

BREAKFAST

Cantaloup, watermelon, or blackberry juice
A liberal portion of boiled rice, with cream
A cup of chocolate or cocoa, with very little sugar
Half a glass of cool water

LUNCHEON

A liberal portion of baked sweet potato, with butter
A glass of water

DINNER

Cream of rice soup
Lima beans or a baked potato
A glass of milk or a cup of junket
Cantaloup

FALL MENU

DIARRHEA—DYSENTERY

BREAKFAST

One egg, boiled three minutes
Rice, boiled plain, or baked chestnuts, served with cream and salt
A cup of hot cocoa

LUNCHEON

A baked sweet potato
Boiled onions
Baked chestnuts, eaten with cream

DINNER

One egg or a glass of buttermilk
A baked potato or baked chestnuts
Turnips, string beans, or carrots
Rice purée made with milk

Drink a cup of hot water at the close of each of these meals.

WINTER MENU

DIARRHEA—DYSENTERY

FIRST DAY: Immediately on rising, devote about five minutes to exercis s Nos. 3 and 5 (see Vol. V, pp. 1344 and 1345) before an open window, or in a thoroughly ventilated room. Drink two glasses of water.

BREAKFAST

A cup of hot chocolate
One egg, whipped
A glass of clabbered milk
A small portion of boiled rice, with cream. The rice should be allowed to simmer over night in a double boiler

LUNCHEON

(This meal should be very light)

A portion of boiled onions, carrots, parsnips, turnips, or squash—any one or two of these
A baked sweet potato
Half a glass of milk
A cup of hot water

DINNER

Three eggs, whipped. See recipe, p. 678.

SECOND DAY: The same as the first.

THIRD DAY: The same as the second, slightly increasing the quantity of food.

FOURTH DAY:

BREAKFAST

One exceedingly ripe banana (must be black spotted), with cream and either nut butter or nuts
One egg, cooked three minutes
Rice or whole wheat, boiled
Thin cocoa or a cup of hot water

LUNCHEON

One fresh vegetable
A baked sweet potato
A cup of hot cocoa or chocolate

DINNER

One fresh vegetable, such as onions, carrots, parsnips, turnips
Choice of rice, baked potato, or baked beans
A very small portion of fish, or white meat of chicken, if there is a craving for meat; if not omit, and take one egg
A cup of hot water with cream and sugar

Exercise and deep breathing, and a glass of water just before retiring.

FIFTH DAY: The same as the fourth.

SIXTH DAY: The same as the first, repeating the diet herein given, day by day, for a week or ten days.

MENUS FOR EMACIATION

SPRING MENU

EMACIATION—UNDERWEIGHT—RATHER ANEMIC

Immediately on rising, devote from twenty to thirty minutes to vigorous exercise and deep breathing.

BREAKFAST

A whole wheat muffin
One two-minute egg
Two exceedingly ripe bananas, baked; serve with thin cream
A cup or two of milk
Half a cup of bran, cooked; serve with cream

LUNCHEON

Two or three whipped eggs, with two glasses of milk and two teaspoonfuls of sugar
Half a cup of bran

DINNER

A cup of hot water
Green peas, asparagus, spinach, turnips, carrots, or creamed onions

A baked potato or whole wheat gems
Half a glass of buttermilk, or whipped eggs, prepared as for luncheon
A cup of chocolate

Drink from one to three glasses of either water or milk at each of these meals.

Take sufficient wheat bran to keep the bowels in normal condition.

For recipe for baked bananas, whipped and coddled eggs, see pp. 677 and 678.

SUMMER MENU

EMACIATION—UNDERWEIGHT—RATHER ANEMIC

On rising, drink two glasses of water and take vigorous exercises and deep breathing.

BREAKFAST

A small quantity of very ripe fruit, such as peaches, plums, or cantaloup
Two fresh eggs, whipped seven or eight minutes; sweeten to taste, adding half a glass of milk to each egg; drink slowly
A spoonful or two of wheat bran and crushed wheat (half of each), thoroughly cooked, eaten with butter and cream

LUNCHEON

Three eggs, prepared as for breakfast
A spoonful of wheat bran

DINNER

A cantaloup or one or two very ripe peaches
A morsel of salt fish or chicken
A baked potato
Two or three eggs, prepared as for breakfast
Two or three exceedingly ripe peaches and a small portion of bran

Just before retiring, eat a few peaches or plums, and take a spoonful of bran.

FALL MENU

EMACIATION—UNDERWEIGHT—RATHER ANEMIC

BREAKFAST

A cup of hot water

A small bunch of grapes

Two or three egg whites and one yolk, whipped from four to five minutes. While whipping, add slowly one tablespoonful of sugar and one of lemon juice

One very ripe banana with thin cream, raisins, and either nuts or nut butter

LUNCHEON

Two or three eggs, prepared as for breakfast

Two medium-sized baked sweet potatoes, with butter

A small portion of rice, or corn hominy, with butter and cream

DINNER

Cooked spinach, or anything green, as a salad

Carrots, parsnips, turnips, squash—any one or two of these

A small portion of fish or half a glass of buttermilk
A baked white potato
A cup of hot water

Sufficient coarse wheat bran or bran gems should be taken to keep the bowels in natural or normal condition. Unless elimination of waste is normal, it is difficult to gain weight.

WINTER MENU

EMACIATION—UNDERWEIGHT—RATHER ANEMIC

BREAKFAST

A cup of hot water, with a very little sugar and cream

Just a bite of fruit—preferably grapes

Whole wheat, thoroughly cooked, eaten with cream

Two eggs prepared any way they are most agreeable; preferably (uncooked) whipped

LUNCHEON

MENU I

One or two fresh vegetables

Choice between a bit of fish or tender chicken if there is a craving for something salty

MENU II

Three or four eggs whipped with sugar and lemon juice. Add half a glass of milk to each egg

Emergency Luncheon III

A baked sweet potato, eaten with butter

A liberal portion of gelatin

Two cups of cocoa or chocolate

DINNER

Spinach, cooked, eaten with a baked potato and one very lightly scrambled egg
A boiled onion
Carrots, parsnips, or turnips
One egg or fish
A baked potato
A glass of clabbered milk, with a sprinkle of sugar
Half-cup of wheat bran, cooked, with a little cream

For cooking "Vegetables" see p. 670.

SPRING MENU

RUN-DOWN CONDITION
FLATULENCY—UNDERWEIGHT

First Day: On rising, drink copiously of cool water, and devote from five to eight minutes to deep breathing exercises.

BREAKFAST

The juice of a sweet orange (Florida Russet preferred)
A cup of water
Two glasses of fresh milk
Two or three corn-meal muffins, with fresh butter

LUNCHEON

From one to three glasses of buttermilk, according to hunger
One egg, whipped as for breakfast

DINNER

One glass of water
Fresh string beans, peas, or asparagus, cooked preferably in a casserole dish
Two medium-sized baked white potatoes (new); eat skins and all

An egg or a cup of junket
A cup of hot water
A tablespoonful of wheat bran

Just before retiring, take a glass of water and the juice of half an orange, and devote from three to five minutes to deep breathing exercises.

SECOND DAY: The same as the first, slightly increasing or decreasing the quantity of food according to normal hunger.

Third Day:

BREAKFAST

Very ripe berries or a baked apple with a spoonful of cream

A cup of hot water with a very little sugar and cream, or taken clear if desired

Two extremely ripe bananas (must be black spotted), eaten with cream and either nuts or nut butter

One or two eggs whipped or taken whole in orange juice

LUNCHEON

A cup or two of chocolate, with thin cream

A whole wheat gem or a corn-meal gem

A tablespoonful of wheat bran

DINNER

A salad of lettuce or endive, with nuts

A large, boiled Spanish onion

Two medium-sized baked sweet or white potatoes

Fish or chicken

One glass of water

Fourth Day: Same as the third.

FIFTH DAY: Same as the first, repeating these menus for a week or ten days as here given. The menus may be varied according to vegetables, fruits, and berries that may come into market as the season advances.

SUMMER MENU

RUN-DOWN CONDITION
FLATULENCY—UNDERWEIGHT

MENU I

BREAKFAST

Peaches with cream
One exceedingly ripe banana with cream and nut butter, and one fig or two dates
Two eggs, whipped; mix with a pint of milk
Wheat bran

LUNCHEON

Choice of okra, parsnips, or carrots
A white potato or corn on cob
One glass of water

MENU II

BREAKFAST

Cantaloup or Japanese plums
Two tablespoonfuls of nuts, masticated to exceeding fineness; eat with bananas and soaked prunes
A large cup of junket or buttermilk
Wheat bran

LUNCHEON

A green salad
Choice of onions, squash, beans, carrots, or beets
A white potato
One glass of water

DINNER

Fish or junket
A baked potato eaten with butter
Onions, squash, beans, or corn
A green salad with nuts
A Japanese persimmon or a cantaloup

Any two of the following: Beans, corn, sweet potato, squash, or onions
One egg, boiled two minutes (chicken, if preferred)
A potato
A salad with a few nuts

The above menus are composed of the fewest number of articles that will supply the nutritive elements required. They may be increased according to normal hunger, but the combinations should be observed.

FALL MENU

RUN-DOWN CONDITION
FLATULENCY—UNDERWEIGHT

FIRST DAY: On rising, drink two cups of hot water. Also eat half a pound of grapes, and devote from three to five minutes to exercises Nos. 3 and 5. (See Vol. V, pp. 1344 and 1345.)

BREAKFAST

Corn bread or a baked white potato
One extremely ripe banana, eaten with thin cream, nut butter, and a few raisins
Cocoa or milk

LUNCHEON

Choice of carrots, parsnips, squash, or any fresh vegetable
A baked sweet potato

DINNER

A salad of anything green
Any two of the following:
*Boiled onions, string beans, carrots, squash, parsnips, turnips, or pumpkin
A baked potato
A very small portion of fish or white meat of chicken. (If neither of these are convenient, an egg cooked two minutes may be substituted)

Eggs, buttermilk, or cheese are preferable to fish or chicken, but the latter may be used to bring up the proteid balance, when the former articles cannot be procured.

*Some one of these vegetables should be made very hot with red pepper for the purpose of exciting stomach and intestinal peristalsis.

A glass of water should be drunk at each of these meals.

SECOND DAY: The same as the first, increasing or decreasing the quantity of food according to normal hunger. Do not overeat.

THIRD DAY: The same as the second.

No doubt the symptoms the first two or three days will be that of weakness and emptiness. This will pass away during the week. There is ample nourishment in the articles prescribed to sustain the body even under strenuous physical labor, but these combinations of food may not be well assimilated the first few days.

FOURTH DAY:

BREAKFAST

A cup of hot water
One whole egg cooked two minutes
Whole wheat muffins
A cup of chocolate

LUNCHEON

A salad
A portion of tender fish or two glasses of milk
A baked potato or a whole wheat gem
A cup of hot water

DINNER

A bit of green salad
Choice of fish, eggs, or buttermilk
One fresh vegetable—preferably string beans made very hot with red pepper
A baked white potato
(A liberal portion of spinach could be eaten at this meal)
A cup of hot water

Wheat bran or a few Concord grapes just before retiring.

FIFTH DAY: The same as the fourth.

SIXTH DAY: The same as the first.

SEVENTH DAY: The same as the second and so on, for a period of about fifteen days.

WINTER MENU

RUN-DOWN CONDITION
FLATULENCY—UNDERWEIGHT

It is well to remember that the best nourished person is the one who subsists upon the fewest number of things that will give to the body the required amount and character of nutrition.

Two glasses of cool water on rising, and the juice of a sweet orange. Devote as much time as possible to vigorous deep breathing exercises before an open window.

MENU I	MENU II
BREAKFAST	
A cup of hot water	A spoonful or two of bran, cooked
A spoonful or two of wheat bran, cooked; serve with thin cream	Whole wheat gems with nut butter
Whole wheat gems eaten with nuts or nut butter	One egg, boiled two minutes
A cup of milk, cocoa, or chocolate	A glass of milk or a cup of cocoa

LUNCHEON

Three or four glasses of milk
Half a cup of wheat bran
Or
Baked white potatoes
Butter

Three or four eggs, whipped, into which put a teaspoonful of sugar to each egg, and a flavor of lemon juice, omitting milk
A cup of water
The juice of an orange an hour later

DINNER

Carrots, squash, or boiled onions—any two of these
A baked potato
One egg
A cup of milk or chocolate

Turnips, carrots, or beets—any two or all of these
A baked potato
Fish
A baked banana eaten with cream, and something sweet if desired

A baked omelet may be used now and then. (See recipe, p. 678.)

For "Choice of Menus," see p. 683